An Address
ON
MISTAKES IN DIAGNOSIS AND THEIR AVOIDANCE.

DELIVERED BEFORE THE GUILDFORD DIVISION OF THE BRITISH MEDICAL ASSOCIATION.

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I WISH to thank you for the honour you have done me by asking me to read a paper before you. I do not come professing to tell you anything new, but to start a friendly discussion upon a subject that must appeal to all—"the making of mistakes and how to avoid some of them."

To err is human, and medical men are human, despite the people's high and flattering expectations. We all make mistakes, but do we always learn from them, or do we soothe ourselves by saying, "I should make the same mistake again to-morrow in a similar case"? He who believes this nonsense builds for himself a fool's paradise, and he deserves to grow no wiser. Surely we can learn how we fall and profit by our falls. We have either failed to collect or to consider judiciously all the available evidence, or we have not thought of all the possibilities, but we have allowed ourselves to be prejudiced in favour of what appears to be the obvious.

Accurate diagnosis is a jewel of price to be sought by every available means, for it is the secret of reasonable and successful treatment and of intelligent prognosis. It is only obtained as a reward of labour. Nowhere are Carlyle's words on labour more applicable than to the medical man's arduous search for accuracy in diagnosis:

"Hast thou valued patience, courage, openness to light, or readiness to own thy mistakes. In wrestling with the dim brute powers of fact thou wilt continually learn."

"Is there not in thine inmost heart a spirit of active method giving thee no rest till thou unfold it?"

How should a diagnosis be made? It must be based upon *facts*, and, for the proper collection of these, *orderly methods* and *accuracy of observation* are essential. But even facts are of little value without the *knowledge* and *understanding* that are necessary to interpret them aright. I propose to deal with these steps in order, and to illustrate my remarks by mentioning a few of my own mistakes, and some others.

The collection of facts is often a laborious business, demanding great patience and perseverance. It is particularly difficult to get a good history from some patients, who frequently forget to mention the most important things, because they naturally do not understand their significance. It is not always easy to obtain an accurate account of existing symptoms; for instance, a patient may be incapable of localizing an abdominal pain. The patient's account, if complete and carefully checked by cross-examination, is of the greatest value, and is usually very suggestive, indicating the lines along which the examinations are likely to be especially profitable. Yet, for one reason or another, material historical facts sometimes remain unknown until it is too late. A forearm was amputated for supposed sarcoma with spontaneous fractures of the radius and ulna. It was presented to a museum, where upon dissection the disease proved to be ununited fracture with considerable callus due to want of rest. It was found afterwards that the patient had sustained the fracture in a domestic quarrel. An *x*-ray examination or even an exploration would have settled the diagnosis and saved the limb.

ORDERLY METHODS.

Systematic methods of examination are of great importance, and it is only by adopting them that most dreadful catastrophes such as diabetic and uraemic coma, following operations of convenience, can be avoided. Think of a young man going into diabetic coma after the removal of a varicocele when the examination of the urine which should precede all operations would have prevented the operation. The well-known association of diabetes and boils and carbuncles should always be borne in mind. A doctor opened a carbuncle upon the forehead of a diabetic child. An anaesthetic was given and coma supervened. The parents thought that the brain must have been wounded at the operation. A systematic examination should surely prevent gastro-jejunostomy for the vomiting of early phthisis, and the gastric crises of locomotor ataxy, yet this operation has been performed for these conditions. The same operation was nearly performed for uraemic vomiting, but the uraemic blindness brought in the ophthalmic surgeon, who saved the situation. When I was house-surgeon I sent in for operation for strangulated femoral hernia a woman who had been constipated and vomiting for three days, and had a tender, hard, irreducible swelling at the saphenous opening. The surgeon agreed, but the sister pointed out that there was early erysipelas at the ankle; the temperature was raised also.

A man, who was thought to have had influenza ten days earlier, was sent to me for cystoscopy. He walked into my consulting room. Upon systematic examination I discovered an appendicular abscess in the pelvis; the appendix was gangrenous.

So-called specialists are very apt to confine their examinations to their own especial regions, and to attribute all symptoms to diseases of these regions. A specialist upon nervous disease overlooked hip disease in a child for months, thinking the wasting of the thigh to be due to infantile paralysis. Similarly, gynaecologists often overlook subacute appendicitis, and call it ovaritis. There are others who cannot get their minds off gout, duodenal ulcer, or chronic constipation.

We sometimes fail to make a correct diagnosis because we omit to use certain methods of examination, especially some of the newer ones, which we may not appreciate at their true value or find too troublesome. Often there are difficulties of place and circumstance; it is one thing to make a diagnosis in a well equipped hospital and quite another to attempt one in a remote country cottage without modern conveniences. It is important to be open to receive information from every available source.

What a number of mistakes and incomplete diagnoses arise from not using the Roentgen rays! Think of the fractures and dislocations that have been overlooked, and the compensations that have been claimed and awarded. A young man was out shooting buck in Siam, and was accidentally shot by his companion. There were two holes, one on each side of the crest of the tibia, and it was therefore thought that the bullet had passed through the leg, and no *x*-ray examination was made, although the patient travelled far to an apparatus. After a great deal of misery the bullet was shown to be in the central canal of the tibia, and was removed a year later.

A number of movable kidneys have been fixed, when stones are the real cause of the pain. It should be a rule in all urinary cases to examine with the *x* rays before any operation is performed. All the urinary organs should be examined. Some time ago I had to remove a disorganized calculous kidney a year after an exploration for movable kidney had been made, but the kidney had not been found, and the movable tumour was said to have been the liver.

Stones were removed from the kidney of a man who soon afterwards died of uraemia. Many stones were then discovered in the opposite kidney. The *x*-ray examination had been limited to one side. Moreover the average total urea excretion had not been estimated in this case, so that an entirely wrong estimate had been made of the danger of the operation. Numberless mistakes have been made because the cystoscope, sigmoidoscope, laryngoscope, and ophthalmoscope have not been used at the right time.

ACCURACY OF OBSERVATION.

The power of observation is to some extent inborn, and sometimes amounts to genius, but it is partly the result of habit and education. It is one of the most valuable acquisitions for a medical man, and one that his daily work fosters. There is little doubt that a country life in childhood, and the study of the exact sciences tend to cultivate it. Without it even *systematic methods* of examination are useless. It should be our constant endeavour to become more and more accurate. A number of mistakes are made over fluctuation. An old man had a large swelling

in the left pectoral region, thought to be a sarcoma of the ribs, but deep fluctuation proved it to be a chronic abscess. Another had a swelling over the hip, which was needlessly incised, because fluctuation had been tested across instead of along the course of the muscle fibres.

It is sometimes difficult to say whether a swelling is translucent or not, and mistakes are common from using a too powerful light. An old lady with a swelling over the front of the shoulder was said to have a Morrant Baker's cyst due to osteo-arthritis of the joint. But on examination with a more reasonable light, the swelling was not translucent. Moreover the opposite shoulder also creaked. Her husband, who was an inventor with time on his hands, had ransacked the British Museum for information about Morrant Baker's cyst and its treatment, only to be referred back to his studies with special reference to lipoma. At the operation the fatty tumour was found to arise from the subsynovial tissue about the bicipital groove. This is the fourth case of the kind that I have seen, and the same mistake had been made by different observers over all of them. In using various difficult methods of examination, such as cystoscopy, beginners are apt to make a good many mistakes. A little blood clot has been mistaken for a vesical growth, and strictures of the rectum, urethra, and œsophagus have been wrongly diagnosed, because of the folding of mucous membrane and pressure of the advancing instruments in wrong directions.

These valuable methods need a certain amount of judgement in their application, and it is well to remember the late Dr. Moxon's wise hint that a microscopic examination is not the best way of telling the difference between a turnip and a swede.

Similarly, sigmoidoscopy is not the most suitable way of discovering internal piles, bleeding from which has led to the needless suspicion of growth in the lower part of the large intestine, out of the reach of the finger.

It is rarely wise to accept the results of the observations of others; it is safer to confirm them whenever possible. I was asked to operate upon a boy of about 7 years of age for intestinal obstruction. The distension of the abdomen and the bulging of the flanks were so enormous as to make it almost certain that the obstruction was low in the large intestine. Volvulus of the sigmoid colon was the only thing that could explain the extreme distension, but the boy was not nearly bad enough for this, nor did the history support it. The subcutaneous abdominal veins were greatly dilated. It was said that the rectum was normal, but on careful bimanual examination I discovered a softish enterolith which acted as a ball-valve at the upper part of the rectum. Upon pushing this back, a great amount of liquid faeces and gas escaped. It was then possible to break up the faecal mass, and to remove it in pieces. The boy was able to go home after three days, and was saved from a needless laparotomy.

Many mistakes are made in the examination of the urinary organs of women. It is too often forgotten that it is necessary to exclude a vaginal source of pathological products. Pus was repeatedly discovered in the urine of a young lady, and was associated with frequency of micturition and pain along the right ureter. The *x*-ray report was negative; therefore an exploration was suggested for tuberculosis of the right kidney. Later a catheter specimen was found to be normal, and a cystoscopic examination and segregation showed that both kidneys were normal; therefore I explored the abdomen, and discovered the cause of the symptoms to be cystic disease of the right ovary, whose capsule was very thick as a result of suppurative appendicitis. For want of careful examination of the back spinal caries is often overlooked for months and treated as stomach ache. Without *a wide knowledge* it is impossible to be correct, and to keep himself up to date in this respect is one of the constant difficulties of a medical man. The busier he gets in his practice, the less time he has to devote to improving his mind. Strange as it may appear, there are many members of the profession who have not yet even heard of Dr. Hertz's ingenious method of examining the stomach and intestines with bismuth and the *x* rays. During the last year I have come across two patients with disease of the stomach, with extreme wasting, in which the diagnosis of malignant disease had been made and a hopeless prognosis given. The bismuth method proved them to be suffering from hour-glass contraction of the stomach. One of these Dr. Hertz kindly examined for me, and I successfully performed gastro-gastrostomy. The other one I examined by the bismuth method myself, and I have only operated on her this week. In this case there was pyloric obstruction as well, therefore Finney's operation had to be performed at the same time. The pyloric pouch was seen to be dilated on the screen, and pyloric stenosis was diagnosed. No amount of knowledge will avail without a proper understanding of the significance of the facts discovered, and without an imagination capable of suggesting all the possible solutions, and a judgement capable of deciding upon the most probable. It sometimes requires a very comprehensive mind to keep conscious of all the facts and possibilities of a difficult case, and in such cases it is always a wise plan to write down the most important points and things to be considered. One of the most helpful principles in diagnosis is that of exclusion of the improbable from the list of possible, and thus to select the most probable. Beyond this we often cannot go. It is very important to consider all the available evidence, and to decide which facts are material. In spite of our efforts there are many cases in which we are unable to arrive at a definite diagnosis. This is especially true in certain urgent abdominal conditions. In many of these an absolute diagnosis is often not essential. What is really important is to be able to decide without delay whether an exploration is, or is not, advisable. If we wait until we have made an absolute diagnosis we will lose a great many lives. The same is true of many subacute and chronic abdominal diseases. It is especially true of early malignant diseases of the stomach and intestine.

Lightning diagnosis, although it may be very fascinating and brilliantly successful in some cases, is bound to lead to error in many others. It is always wise to put it to the test of a cooler judgement soundly based upon all the available facts. The following is a glaring example of a mistake arising out of excessive hurry. A child was seen sucking a curling pin, and a little while afterwards was found crying, and the pin was missing. The mother thought that the child had swallowed it, and hurried him off to the cottage hospital. There the abdomen was opened and the stomach examined, but the pin was not found. Three days later the pin was discovered in the patient's cot at home. Fortunately the child recovered. As a contrast, a triumph of more careful methods may be mentioned. An elderly woman was considered by two physicians and a surgeon to be suffering from malignant disease, probably affecting the gall bladder. She was very ill, sallow, and wasted. The shape of the swelling suggested to me that of the lower pole of the kidney and its distended pelvis, but the urine was said to be normal. Upon microscopic examination, however, pus cells were found in a centrifugalized deposit. Cystoscopic examination showed slight chronic cystitis, and no urine could be seen issuing from the right ureter. Segregation confirmed this. Pyonephrosis was therefore diagnosed. Radiography did not discover any stone, and the tuberculin tests were negative. Therefore some form of valvular obstruction was considered to be the most probable cause. At the operation the upper part of the ureter and the pelvis were folded like a concertina by old periureteral adhesions, and the junction of the ureter and the pelvis was valvular. The kidney was hopelessly disorganized, and was successfully removed. At one spot in front the kidney had perforated and had become adherent to the parietal muscles just below the liver. The resulting induration had previously been regarded as evidence of spreading malignant disease.

AT a sale on behalf of the Children's Union of the Waifs and Strays Society, opened on December 6th by Princess Christian, it was stated that the society now has 20,000 members and supports five homes for crippled children. They are situated in Surrey, Yorkshire, and Lancashire.

AT the forty-seventh annual meeting of the Surgical Aid Society, on December 6th, it was stated that the income of the society had increased from £24,498 to £30,498, a growth of nearly 24 per cent., which was all the more satisfactory in view of the general financial depression which had prevailed during the year. The number of surgical appliances supplied by the society also showed some increase, numbering some 40,000, as compared with little over 39,000 in the previous twelve months.

THE PHYSICAL SIGNS OF INCIPIENT PULMONARY TUBERCULOSIS

AND ITS TREATMENT BY CONTINUOUS ANTISEPTIC INHALATIONS.

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THE object of this paper is to advocate an unusual method of treatment in the early, and especially in the earliest, stage of pulmonary tuberculosis. Incidentally it will be necessary to describe the earliest physical signs of a tuberculous infection of the lungs, which are inadequately and incorrectly described in the textbooks.

The treatment most in favour at the present time for cases of pulmonary tuberculosis consists of absolute rest while pyrexia is present, abundance of fresh air, abundance of nutriment, and graduated exercise under medical supervision when pyrexia has ceased. It is certain that these measures have aided in the recovery of many. They place the patient under the most favourable circumstances for fighting his battle with the invading bacilli. But there is one obvious defect: they do not include any organized attack on the bacilli themselves. They place the patient under favourable circumstances, but they leave him to fight alone. Attempts have, indeed, been made to give actual assistance by the injection of tuberculin. But this treatment is by no means devoid of risk. If used at all, it can only be slowly, in carefully regulated minimal doses, and under constant observation of the opsonic index. It is very questionable whether such injections are ever justifiable in the early stage of pulmonary tuberculosis, for the opsonic index is then constantly varying in consequence of the autoinoculation produced by the local disease.

Attempts to combat the tuberculous infection by means of antiseptic substances, such as creosote or iodoform given by the mouth, have attained very little success, and these drugs may produce gastro-intestinal irritation. The idea of administering antiseptic drugs by the air passages suggested itself to physicians thirty years ago. In 1877 Sir William Roberts claimed good results in phthisical cases from the use of antiseptic inhalation by means of a "respirator-inhaler," which covered the mouth only, and which he directed to be "worn for fifteen, thirty, or sixty minutes several times a day." Dr. Coghill also employed a similar apparatus, and laid stress on the necessity that the patient should practise inspiration by the mouth and expiration by the nose. "Each inhalation should last from fifteen to twenty minutes, and may be with advantage frequently repeated." The formula which he recommended in 1881 was: ℞ Tinct. iodi aetherealis ʒij, acidi carbolici ʒij, creosoti vel thymoli ʒj, sp. vini rect. ad ʒj; and he also said that "where cough is urgent or breathing embarrassed chloroform or sulphuric ether may be added at discretion." The quantity of the solution to be used was "10 to 20 drops twice a day at least," and he left the frequency of use largely to the decision of the patient himself. He adds: "A great many of my patients have of their own accord come to use the respirator almost continuously day and night, from their experience of its good effects."

Dr. Burney Yeo, in a lecture delivered in King's College Hospital in 1882, advocated a new and simple oro-nasal inhaler constructed of perforated zinc, and for use therewith he advised a mixture of "creosote, carbolic acid, eucalyptol, or turpentine, with equal parts of spirits of chloroform." He pointed out that such an inhaler is extremely cheap, that it is light and comfortable to wear, that patients find no difficulty in sleeping with it on, and that cough is rapidly relieved. He preferred a mixture of equal parts of creosote and spirit of chloroform, though he sometimes employed carbolic acid or eucalyptol, and occasionally iodine. He found turpentine useful in cases of haemorrhage. He advocated "continuous or almost continuous inhalation." He stated that many cases under his care had improved remarkably by using this inhaler, and he gave the particulars of one very striking case. But he does not claim that by the use of this method it is possible definitely to arrest the disease in its early stage.

Dr. Hassall, in his treatise on *The Inhalation Treatment of Diseases of the Organs of Respiration, including Consumption*, published in 1885, endeavoured to prove that oro-nasal inhalers, and especially Dr. Yeo's, were practically useless; that a very small amount of the carbolic acid or other antiseptic used really found its way into the lungs; and that the only effective method was to place the patient in a chamber filled with antiseptic vapour. His objections, however, were founded on theory and on calculation, not on observation of clinical results. His inhalation chamber is practically impossible in most instances, but his criticism seems to have been accepted by the profession, and to have produced a scepticism which resulted in an almost complete disuse of the method. Yet that excellent clinical observer, Dr. Wilson Fox, wrote: "The antiseptic effect has been doubted by Hassall, but there can be no question that inhalations practised in this manner, with creosote, thymol, eucalyptus, iodoform, iodine, or terebene, tend to diminish cough and expectoration, and that in some cases marked improvement in the patient's state occurs during their use, even in very advanced stages."

If a treatment by inhalation of antiseptics is to be really effective, three conditions are essential:

1. It must be continuous and constantly in operation during the whole of the twenty-four hours, except at meal times.

2. The inhaler employed must be light and capable of being worn both in the daytime and during sleep; it must not hinder respiration, and it should be cheap.

3. The solution employed should be as strong as possible, and it may with advantage be composed of a combination of several volatile antiseptic substances.

During the last four years I have treated all my cases of early pulmonary tuberculosis by this method, and the results have been so remarkable that I desire to bring them before the profession, in the hope that the method may be generally used. The inhaler employed has been the simple oro-nasal cage of perforated zinc advocated by Dr. Burney Yeo. It is worn over the nose and mouth, and is kept in place by elastic bands behind the ears; it contains a piece of sponge or felt on which the solution is dropped. The only precaution necessary is to take care that the edges of the inhaler, which rest on the skin, are not wetted, lest the skin should be stained or made sore. The antiseptic solution which I have employed has been: ℞ Acidi carbolici ʒij, creosoti ʒij, tinct. iodi ʒj, spir. aetheris ʒj, spir. chloroformi ʒij. Of this solution, 6 to 8 drops are poured on the felt of the inhaler every hour during the daytime, and two or three times during the night if the patient is awake. The odour of the solution is not unpleasant, and patients appear to derive great benefit from its use. Cough is rapidly relieved without any sedative or expectorant medicines, and sputum, if any, is more easily expectorated and is lessened in quantity. The use of this solution has no irritating tendency, nor does it cause haemoptysis. If haemorrhage should occur, it might be well to remember Dr. Yeo's suggestion and to add turpentine to the solution. The absolutely continuous use of the inhaler (except at meal-times) must be rigidly required, and it is very desirable to keep the patient at rest in bed for a week at least, the windows of his bedroom being widely open. During the second week he may be allowed to rise for an hour or two daily, but the continuous use of the inhaler is essential. When the temperature is normal, after the first ten days or so, he may be allowed to omit the inhaler for an hour every morning and to take a walk in the open air. Gradually the periods of exercise may be increased and the number of hours during which the inhaler is used may be very gradually diminished.

Two other points claim attention from the outset. The first is the condition of the teeth, gums, and throat. After every meal the mouth should be rinsed with sanitas fluid and water in equal parts. As soon as possible decayed stumps of teeth should be extracted and carious teeth filled or removed. If the tonsils or fauces are unhealthy, they may be sprayed with a solution of perchloride of mercury of the strength of 1 in 2,000. If there is any nasal obstruction it is advisable to spray the nostrils thoroughly two or three times daily with ℞ Cocain gr. iv, ol. eucalypti ʒss, parolein ʒj, by means of a parolein-spray apparatus. If the patient is a smoker, it is

necessary that he should give up the use of tobacco at once and permanently.

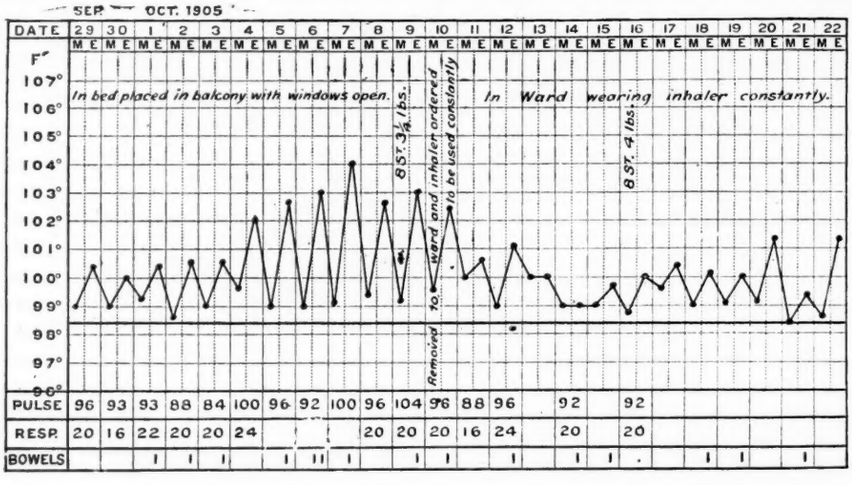
The second point which claims attention is the question of nutriment. It is essential to administer a sufficiency of easily-digested and nutritious food. I insist on every patient taking four times daily, in addition to his ordinary meals, a half-pint of (scalded) milk to which from a dessertspoonful to a tablespoonful of "malted milk" has been added.

Before relating the 30 cases of incipient or early pulmonary tuberculosis which I have treated by continuous antiseptic inhalation I insert a temperature chart taken from a case of advanced phthisis in which the employment of this method caused an immediate reduction of the hectic temperature, with arrest of sweating and slight gain in weight.

W. C., aged 32, was admitted into St. Mary's Hospital during my autumn holiday in 1905. When I resumed charge of the wards in October I found his bed placed on a sheltered balcony, with open windows to allow continuous fresh air as fully as possible. Removal from this to a hospital ward, with the use of continuous antiseptic inhalation, produced the striking effect shown by the chart. The course of the disease became much less acute, and finally so chronic that it was necessary to transfer him to an infirmary.

The following cases have been treated by this method:

1. I. B., aged 19, was admitted into St. Mary's Hospital under my care on March 8th, 1907, with signs of early tuberculous affection of both upper and lower apices of both lungs and evidence of fluid effusion into the left pleura. There was persistent pyrexia, the temperature being between 101° and 102° F.; twice in the first week it fell to 99° F., and once rose to 103° F. The antiseptic measures I have mentioned were begun at once, and she wore the inhaler day and night. There was no sputum. The pulse-rate varied from 84 to 100, the respiration-rate from 28 to 36. On March 17th 33 oz. of clear fluid were aspirated from the left pleural cavity; this fluid was found to be sterile. On March 18th her weight was found to be 8 st. 10⅜ lb. The antiseptic measures were continued. During the second week her temperature varied from 99° to 101° F.; it first fell to normal on March 23rd. It was a little irregular from March 25th to March 27th, and again from April 2nd to April 7th, but after this it remained persistently normal. On March 27th her weight was only 8 st. 5½ lb., showing a loss of 5 lb. in nine days. From March 27th to April 6th she had diarrhoea, so that I feared she might have tuberculosis of the intestine, and her weight fell to 7 st. 13 lb.—a total loss of 11½ lb. But the inhaler had been worn persistently day and night from the first, and now came the turn of the tide. After April 7th, the temperature remained normal, and she began to improve rapidly. On April 10th her weight was 7 st. 13½ lb.; on April 18th, 8 st. 6½ lb.; on April 25th, 8 st. 11¼ lb.; on May 1st, 9 st. 2⅜ lb.; on May 6th, when she was discharged, 9 st. 5½ lb.—a gain of 20 lb. in twenty-six days. The difference in her appearance was extraordinary. One would hardly have known her to be the same patient.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BOWELS

2. Mr. S., a medical student, was under my care in St. Mary's Hospital for several weeks in the summer of 1906. He had pyrexia, cough, and marked signs (with crepitant sounds) at all four apices. On two separate occasions the sputum was found to contain large numbers of tubercle bacilli. His opsonic index was found to vary from 0.9 to 1.2. He was kept at rest in bed, an icebag was applied over the affected areas of lung, and the antiseptic measures described above were employed at once, the inhaler being worn night and day from the first. His temperature soon fell to normal, his physical signs improved, and before he left the hospital he had gained 2 lb. in weight. Though the first and second examinations of his sputum showed large numbers of bacilli, on the third examination they were rather difficult to find. He now spent several weeks at Llandrindod Wells, wearing his inhaler most conscientiously, living as far as possible in the open air, and taking plenty of milk. When he returned to London in October he had gained 20 lb. in weight. His sputum was very scanty, but it still contained a very small number of bacilli. His improvement was so marked that I decided that it was unnecessary for him to go to Davos for the winter, as he was willing to do, and that he might gradually resume work. This he did cautiously, and with excellent success. His weight continued to increase, and on March 16th, 1907, it was 11 st. 1⅓ lb.—a total gain since his illness of 30 lb. At this date he was still using the inhaler about an hour daily; he had recently passed safely through an attack of influenza. This gentleman still continues in excellent health, looks extremely well, and has done hard work and gained distinction in his hospital classes.

3. Mr. E., aged 34, was seen by me in consultation with Mr. Jessett, F.R.C.S., and Dr. English on June 17th, 1907. Five weeks previously Mr. Jessett had removed a chain of caseous tuberculous glands from the right cervical region. The wound healed well, but two days after the operation the temperature rose gradually and became of hectic type. The pyrexial period lasted seventeen days. For six days the temperature was nearly normal. This was followed by another pyrexial period of ten days; it was now again normal. The pyrexia was accompanied by increasing dyspnoea, he was expectorating thick mucoid sputum, and some night sweats were present. No tubercle bacilli could be found in the sputum, but the physical signs were quite typical of a tuberculous infection of both lungs. The patient was at this time in a nursing home in South London, but he determined to go back to his lodgings near Westbourne Park Station. I saw him again, in consultation with Dr. Thoresby Jones, on June 29th. He occupied two rooms on the first floor in a rather narrow street on a motor omnibus route—by no means an ideal place for the treatment of such a case. His bed was in the back room; the folding doors were thrown back, and both windows of the front room were constantly widely opened. He was fortunate in obtaining the help of a most excellent nurse. It was found that the physical signs had considerably increased during the twelve days, and there was now a pleural effusion on the right side. This fluid was drawn off and proved to be sterile. After the aspiration the side was strapped and an icebag applied. A Yeo's inhaler was worn constantly day and night, in accordance with the method already described, and he was fed almost exclusively on milk and malted milk. The sputum increased rapidly in amount, and became muco-purulent, the temperature continued at 102° F., and there was discomfort about the larynx. An icebag was applied over this region, and two others over the lung. The very copious and purulent sputum was examined bacteriologically, and was found to be full of streptococci. This fact, indicating a streptococcal infection of a tuberculous lung, seemed to me to render the prognosis almost hopeless. On July 11th a very violent paroxysm of coughing occurred, lasting five or six hours, when he brought up much purulent material and some blood. The temperature rose to 103° F., and the pulse to 130 for a short time, but this soon subsided, and he seemed better. He was assiduously nursed and carefully fed, and his appetite began to improve. The inhaler was worn persistently. From June 26th to July 4th the temperature was from 100° to 102.3° F.; from July 4th to July 10th, 99.5° to 101° F.; from July 10th to July 14th, 99° to 100° F.; and on July 14th it became normal permanently. On July 23rd he was still improving, and was obviously gaining flesh; sputum much less, but still copious and muco-purulent; one or two slighter paroxysms of coughing. There was now resonance in the right axilla (where the fluid had been), but an area of dullness existed at the right anterior base and the right posterior base, with some bronchial breathing and moist sounds—clearly a basic cavity. On August 16th he had sufficiently recovered to come to my house, and I found that there were still signs, though less marked, of a cavity at the right base. He looked decidedly stouter. His weight was found to be 11 st. 10½ lb., his weight in health having been 12 st. 6 lb. He was sent into the country, and persisted in the use of his inhaler. After this his recovery was uninterrupted, and he resumed his work. I examined him again on April 28th, 1909, after an interval of a year and eight months. All the old dull areas could be detected, but there was no bronchial breathing, no prolonged expiration, and no crepitant sound—in short, no

sign of activity. His weight had increased to 15 st. 6 lb.—an increase of no less than 52 lb.! He looked so well that I hardly recognized him at first sight. He had done full work for more than eighteen months, from 9 a.m. to 7 p.m. each day, in an ill-ventilated shop, and had enjoyed a summer holiday in France.

These three cases give sufficient proof of the curative influence of continuous antiseptic inhalation in a tuberculous, and even in a streptococcal, invasion of the lungs. They justify the hope that if this treatment can be adopted in the earliest stage of a pulmonary tuberculosis, we may be able definitely and completely to arrest the disease. If we are to have any prospect of abolishing pulmonary phthisis—one of the greatest scourges of the human race—we must attack it long before any bacilli can be found in the expectoration. In the great majority of cases of pulmonary tuberculosis, definite and characteristic physical signs are present for weeks or months before the patient begins to expectorate. To wait for tubercle bacilli in the sputum before diagnosing pulmonary tuberculosis is like delaying the diagnosis of cancer until the glands are involved. It is therefore essential to acquire accurate ideas as to the exact localization in the lung of an incipient pulmonary tuberculosis and as to the physical signs which are caused by it. For a statement of the current teaching on this subject I turn to the latest authoritative monograph, the article on Tuberculosis of the Lung in *Green's Encyclopaedia and Dictionary of Medicine and Surgery*, vol. vi, published two years ago. In this article, written by a physician of wide experience, there is a section on page 35, under the title Physical Signs of Incipient Tuberculosis, which states that "The early determination of pulmonary tuberculosis by physical signs affords scope for great refinement of methods. In proportion to the earliness of the process the physical signs are slighter; they are, consequently, apt to be missed. Reliable skill can only be obtained after prolonged and careful practice. *Auscultation* affords the more delicate tests. The auscultatory phenomena include slight modifications of the normal respiratory murmur—for example, enfeeblement, harshness, interrupted or cogwheel or jerky respiration, prolonged expiration, blowing expiration (broncho-vesicular). When the respiration is actually bronchial, the process is something more than incipient merely. . . . *Percussion* yields results of importance even at early stages. All portions of the lung must be examined. Corresponding portions must be compared with care; more especially, the two apices must be tested comparatively in respect of percussion sound and extent of resonant area."

This statement as to the earliest physical signs in an incipient pulmonary tuberculosis, and similar statements in the textbooks, seem to me both erroneous and very inadequate—erroneous in assigning greater importance to auscultation than to percussion, and quite inadequate in the information given as to the regions of the thoracic wall where we may expect to find the earliest changes. Yet it is now nearly twenty years since Dr. Kingston Fowler pointed out that tuberculosis of the lungs begins, in an overwhelming majority of cases, at certain definite localities in the lung, and that the disease progresses by well-defined routes. This statement was founded on Dr. Fowler's experiences of autopsies at the Brompton Hospital. It has found its way into some of the textbooks, and is recognized as conveying true information of pathological fact; but it has produced little or no modification of the descriptions of the clinical picture of the disease. Dr. Fowler showed that the earliest lesion occurs not at the very summit of the lung, but at a spot about 1 in. to 1½ in. below the summit, in the lung as seen in the *post-mortem* room. This will correspond to a greater distance, probably quite 2 in., in the expanded air-containing lung. From this site the process may extend either backwards towards the suprascapular fossa, or downwards and outwards into the second intercostal space. Clinically this can quite easily be recognized by careful percussion. The earliest physical signs (dullness and lessened air-entry) may usually be first detected in the innermost part of the first intercostal space on one or both sides, extending from one to three fingerbreadths from the sternum, and possibly also in the second space at about one fingerbreadth from the sternum. Posteriorly they may be detected quite close to the uppermost dorsal vertebrae on either side, a region which normally is quite resonant. Dr. Fowler also pointed out that less commonly the site of the earliest lesion was situated more externally, and this also is recognized clinically by dullness in the outermost part of the first, and sometimes of the second, intercostal spaces; posteriorly it can be detected in the outer part of the suprascapular fossa, occasionally also in the upper axilla. This area of dullness often exists along with that first described, while the mid-clavicular region remains much more resonant.

In the lower lobe also a similar tuberculous focus is apt to be developed at a very early stage, with, or very soon after, the focus in the upper lobe. Dr. Fowler stated that in the lower lobe also the situation of this early lesion is about 1 in. to 1½ in. below the summit of the lower lobe, and that it is apt to spread downwards and outwards along the lower edge of the interlobar fissure. He described the position at the back of the chest where this lesion was to be looked for. Clinically it is quite easy to verify these facts if careful percussion is practised over the inner extremity of the spine of the scapula and the adjoining region.

These areas at the four apices are the most frequent and characteristic, but occasionally small areas of dullness may be found in front in the right middle lobe, and in the antero-lateral region of the anterior base of the left lung; posteriorly, at the posterior scapular edge, at the scapular angle, or near the posterior base of the lung. The existence of dullness and lessened air-entry at these various localities is quite easy to detect. All that is required for their discovery is care, patience, a correct method of percussion, and a little practice. Anyone who is willing to take a little trouble can satisfy himself of the accuracy of what I have stated. Over these dull areas auscultation often reveals nothing but a defective air-entry, though very slight crepitant sounds may be present; such sounds may or may not be removed by a cough. At a slightly later stage the inspiration may be a little harsh or interrupted; the expiration slightly prolonged. When bronchial breathing, bronchophony, and distinctly audible whisper are present, there is either consolidation around a bronchial tube or a definite cavity.

I may point out the similarity of the earliest physical signs in pulmonary tuberculosis to the earliest physical signs in pneumonia. On the first day of a pneumonia, before any sharp crepitation or any bronchial breathing is developed, it is often possible to detect by careful percussion a small area of diminished resonance or actual dullness, over which the only auscultatory sign is deficiency of air-entry. In both tuberculosis and pneumonia the similar phenomena are due to a similar cause, a local microbic invasion and a local arrest of pulmonary function.

The typical localization of these areas of dullness and lessened air-entry at the four apices is, in itself, almost proof of a tuberculous infection of the lung, but in young subjects they may be simulated (though not often exactly) by simple collapse, and occasionally by bronchopneumonia or by enlarged bronchial glands. They are not necessarily proof of an *active* tuberculous lesion; they may be the abiding result of a former lesion which has recovered or become quiescent. Local crepitant sounds over these dull areas, pyrexia, hacking cough, haemoptysis, or local tenderness, would indicate an active lesion. These physical signs are the earliest obtainable evidence of the existence of pulmonary tuberculosis. They are long antecedent to the appearance of any sputum, and therefore to any possibility of microscopical examination. They are also quite distinct long before any evidence can be obtained by the use of Roentgen rays; the statements which have been made to the contrary are founded on inaccurate percussion. But a variability of the opsonic index may exist along with the earliest pulmonary signs: of this I have twice had proof. A worker in the bacteriological laboratory was found to have a varying opsonic index to tubercle, though he felt quite well. He came to me and requested me to examine his lungs. I found minimal areas in the characteristic positions, measuring from a half to one fingerbreadth—that is, 1 to 2 cm. He did not practise inhalations, but went to a sanatorium, where two months later he had a pyrexial attack lasting a week, and a few tubercle bacilli were found in his (very scanty) sputum. He remained in the sanatorium four months, and gained 8 lb. in weight. I examined him again on his return, and found all the dull areas distinctly larger but quiescent, and he seemed to be in good health. The second case is the converse of the

first. A patient who had had a brief attack of pleurisy on the left side, and who quickly recovered, was found to have minimal characteristic areas in the left lung only. There was also slight enlargement of cervical glands. An investigation of the opsonic index to tubercle was suggested and carried out; it was found to be varying. The variability fortunately lasted only a few days.

The dull areas of pulmonary tuberculosis differ much in size. They may be detected when they measure only half a fingerbreadth, or 1 cm., but they often measure about two fingerbreadths. In a severe case they may reach three fingerbreadths, and as much as four in the latest stages of the illness. The auscultatory signs will be determined by the amount of implication and destruction of the pulmonary structure. The possibility of accurate measurement by percussion makes it easy to construct a rough diagram showing the localization of these areas, and the number of fingerbreadths in each can be recorded by figures. Thus, the condition at one visit can be compared with that found at a subsequent visit. The areas may be found to be smaller when the case is improving, and larger if the disease has progressed. I find these records quite trustworthy, and of the greatest assistance in helping to determine whether improvement or deterioration has occurred.

I now add a brief description of 27 other cases of incipient or early pulmonary tuberculosis treated by the method of continuous antiseptic inhalation:

4. Mr. M., aged 33, seen with Dr. Mowll, of Surbiton, July 3rd, 1905. After a sharp attack of influenza he was found to have signs of tubercle at all four apices. Loss of weight 7 lb. Recovered under constant use of inhaler, and gained weight, 14 lb. Went back to work, and in December, 1906, was examined for life insurance and accepted as a "first-class life." But in January, 1907, he had a fresh attack, chiefly in the left lung. He was again kept at home for a fortnight, and used his inhaler persistently; again regained the weight lost, and resumed his occupation, which involves both mental and physical strain. He has remained quite well and is fully equal to his duties.

5. D. B., aged nearly 13, the son of a medical man, had been sent home from boarding school because ill. Tall, but 2½ lb. under average weight for age. Short cough. Signs (November, 1906) at all four apices. Under continuous antiseptic inhalation his cough vanished in a few days; he gained 6 lb. in weight in five weeks, and looked better than for two years. Advised still to use the inhaler three hours daily. He continued to improve; a year later he had gained 14 lb. more, and a year later still an additional 9 lb. In November, 1909, Dr. B. writes: "My son Douglas keeps well, loses no time at school, enjoys the games, and writes home for large cakes to be sent."

6. Miss V., a hospital sister. Signs in left lung only at first, later at all four apices and one lower area. Loss of weight, 7 lb. No sputum. Weight gained in first three weeks of treatment, 3½ lb.; in the next month, 5 lb.; total gain, 8½ lb. Recovered completely, and for eighteen months has fulfilled her arduous duties with conspicuous ability and success.

7. Miss M., M.B.Lond. Signs at all four apices. Weight lost, 4¾ lb. No sputum. Weight gained in first three weeks of treatment, 2¾ lb.; during the next month, 12¼ lb.; subsequent gain, 15 lb.; total gain, 30 lb. (Her weight rose from 114 lb. to 144 lb.) She has been quite well for two years, and is now doing school inspection work six hours daily for five days a week; is giving ambulance lectures, and has private practice.

8. Miss M., aged 28. Signs in left lung only at first, afterwards at all four apices and four lower areas. No sputum. Had lost weight. During first three weeks of treatment lost ¾ lb., and afterwards regained it; during the next month gained another pound. She then felt much better, and her cough had disappeared. I have heard from her recently that she is still well.

9. Admiral X., aged 50, seen in consultation with Dr. G. A. Simmons, of Westminster, April 11th, 1907. Eight months previously a little pleurisy on left side; four months ago another attack on right side, with a little haemoptysis. Yesterday again pain in side and slight haemoptysis. Signs of tubercle in right lung only. Under continuous antiseptic inhalation he rapidly recovered, and in June, 1908, was "in excellent health," and doing important public work.

10. Mrs. R., aged 38. Signs at all four apices, and a small cavity at left lower apex; sputum mucoid; no tubercle bacilli found. Weight gained in first three weeks of treatment 4 lb., and during the next month 8 lb.; total weight gained, 12 lb. Cough and sputum much less; looks much better. I have not heard from her during the last two years.

11. K. S., aged 17, housemaid. Signs at all four apices; subsequently developed a small cavity at right apex; no sputum. Her weight was not taken until after six weeks' treatment; it was then 97 lb.; she gained 6 lb. Recovered and remained well for six months, then caught fresh cold from a wetting, and developed a few fresh signs, but two months later she was "much better."

12. Mr. C., aged 25, brought by Dr. G. A. Simmons, of Westminster. Four years previously, after an attack of influenza, was ill for three weeks with pyrexia of hectic type. Recovered slowly, and after this had cough each winter, and some sputum with occasional streaks of blood. Loss of weight, 7 lb. Frequent short cough. Tubercle bacilli not found in sputum. Signs at all four apices and two lower areas. Under continuous antiseptic inhalation his cough ceased in a week, and his first remark on his second visit was: "I can't think where my cough has gone to!" Gain of weight in first three weeks of treatment, 2½ lb.; during the next month, 4½ lb.; subsequent gain, 2½ lb.: total, 9½ lb. He spent some months of the winter of 1907-8 at a high altitude station in the Rhone Valley, under the observation of Dr. Tidey, of Montreux, using his inhaler six hours daily and at night, and returned to England in excellent health. I have recently heard from him that he has gained 7 lb. in weight since I last saw him,

13. Mr. P., aged 36, sent by Dr. Wilson, of Boston. Signs at all four apices and four lower areas. Sputum scanty. Tubercle bacilli not found. Has lost 2 lb. in weight during the last three weeks. Under inhalation treatment he gained 5 lb. in four weeks. He continued to improve, and six months later was quite well, except for some chronic nasal obstruction. He has remained well.

14. H. C., aged 19, brought by Dr. Hickley, of South Lambeth Road. Slight haemoptysis two years ago, with signs at right apex. Two more attacks of slight haemoptysis recently. Signs at all four apices and five lower areas. Under inhalation treatment he gained 1 lb. in the first three weeks. He used his inhaler for some months, and a year after his first visit to me, Dr. Hickley reported that he had been "quite well for some time." I have recently heard that he continues well.

15. K. P., aged 15, sent by Dr. Brooks, of Felixstowe, under whose care he had been for a month on account of pleurisy at the right base. His illness began two months ago. He had improved in general condition, having gained 7 lb., but the physical signs were stationary. A sister of his father's had died of phthisis after an illness of only ten weeks. His weight when he came to me on September 18th, 1908, was 9 st. 7 lb.; he showed signs of tubercle at all four apices and five lower areas, including two large ones at the right base, but apparently no pleural effusion. The treatment by continuous antiseptic inhalation was adopted at once, under the supervision of Dr. Balgarnie and Dr. Adams, of Hartley Wintney, Winchfield, Hampshire, and a very thorough open-air treatment was at the same time carried out by them, the boy living in an open shelter in his father's garden. Sputum very scanty. Twelve days later Dr. Balgarnie wrote that the cough was almost gone, and that he had gained 7 lb. in weight. In another month he gained 10 lb. more, and subsequently 3 lb.: total gain, 20 lb. In December, 1908, he looked fat and well, and had not coughed for a long time. His weight was then 10 st. 13 lb. In November, 1909, Dr. Balgarnie writes that he had recently examined the boy's chest very carefully, and could find no evidence of any disease of the lungs; he considered him cured.

16. Mr. H., aged 20, a patient of Dr. Nettell, of Shirebrook, Mansfield. He had no cough, but had suffered from repeated attacks of tonsillitis. Four years previously he had suffered from pleurisy; he had lost 3 lb. in weight; he had signs at all four apices and four lower areas, the largest being at the right lateral base—doubtless the remains of the former pleurisy. No sputum. Under the antiseptic treatment by inhalation and sprays to throat and nose he rapidly improved, gaining 3¾ lb. in weight. He returned to his work as a mining engineer, and he continued well. It is doubtful whether some of his dull areas were not of old standing, the legacy of his attack four years previously, but they appeared to diminish slightly while he was under treatment.

17. A. W., aged 26, marine engineer; sent by Dr. Beaumont, of East Ham. He had had cough for four months, and had been taken ill on shipboard. He was admitted into hospital at Sydney, Australia, and remained there ten weeks. He had been back in England for one week. He showed signs at all four apices and five lower areas, with a cavity at the right apex; he looked very ill, and had lost more than 3 lb. in weight. Under treatment by antiseptic inhalation he rapidly improved, and when I next saw him, four months later, he had gained 15½ lb. in weight. Three months later still there had been a further gain of 3 lb.; total gain, 18½ lb. He looked quite a different man, and had very slight cough in the morning only. There were still signs of a cavity at the right apex. I have heard no more of him.

18. C. G., aged 40, had suffered from occasional slight attacks of haemoptysis since 28 years of age, with slight cough. When he came to me on February 14th, 1909, he had had a "cold" for five weeks, followed by an attack of haemoptysis more severe than ever before. He showed signs at all four apices and two lower areas, with possibly a small cavity at his right apex. After a week in bed, with continuous antiseptic inhalation, he returned to his work. He was able to wear the inhaler in his office for seven hours daily, also at night. During the first three weeks of treatment he gained 3½ lb.; during the next month, 3 lb., and subsequently 2 lb.: total gain, 8½ lb. His friends, he stated, "never saw him look so well." After giving up the inhalations he had a small extension of physical signs in the right second space, and lost 1½ lb., but a return to the treatment soon arrested this. He is now in excellent health and doing full work.

19. Miss T., aged 18, sent by Dr. Wilson, of Boston. Cough for three months, but no sputum. Signs at all four apices and two lower areas. Under treatment by continuous antiseptic inhalation the cough soon disappeared, and she gained 2½ lb. in weight. I heard last month that she was very well "and growing quite fat."

20. Miss H., aged 22, sent by Dr. Leeson, of Twickenham. Signs at first only in left lung posteriorly, but afterwards at all four apices and two lower areas. She had lost 2½ lb. in the last three weeks. Under treatment by continuous antiseptic inhalation there was steady improvement; the cough rapidly diminished, and she told me that "life was now worth living." She gained 2 lb. in the first three weeks; 1½ lb. during the next month, 2½ lb. subsequently; total gain, 6 lb. Is still using the inhaler, and is "wonderfully better" and very active.

21. Mr. B., aged 36, sent by Dr. Grove, of St. Ives, Hunts. His illness began eight months previously, with catarrh and haemoptysis. Dr. Grove found signs of tubercle at the right apex, but no baciili in the sputum. Cough worse for four months. Had lost 4 lb. Dr. Grove found tubercle bacilli for the first time the day before the patient came to me. There had been phthisis in his mother's family, and his father died of rheumatic fever. The patient had had pains in his knees, and was found to have a moderately dilated heart, a systolic apex murmur, and a short presystolic. He had signs of tubercle in his lungs at all four apices and two lower areas. After two weeks' rest in bed and continuous use of the inhaler he was able to return to his office, wearing the inhaler while at his work, and altogether about twenty hours out of the twenty-four. During the first three weeks he lost ½ lb.; but in the next month gained 4½ lb., and subsequently 14½ lb., a total gain of 18½ lb. He is now doing full work without fatigue, and gradually lessening his use of the inhaler. He feels very well.

22. Mr. P., aged 38, sent to me by Case 3. Cough for four months. Felt ill and unequal to his work for one month. Signs at all four apices and four lower areas; no sputum. After a week's rest in bed with continuous antiseptic inhalation he returned to his work, and was able to wear his inhaler for several hours daily, and at night. The cough disappeared within a week. Gain of weight in first three weeks, 4 lb.; during the next month, 5 lb.; total gain, 9 lb. During July he had to work twelve hours a day, and he lost ground a little; but he persevered with the inhalations, and by September had quite recovered. He was doing his full work without fatigue, and had had no cough for three months.

23. Mr. H., aged 32, also sent by Case 3. Illness began four months previously, and he lost weight rapidly. He also suffered from hydrocele, which was tapped several times. Temporary improvement occurred, but a fortnight ago he went to Germany for a week and experienced "shocking weather." Came back feeling ill. Showed signs at all four apices and two lower areas, with a cavity at his right apex. Evening temperature 99.8° F.; sputum scanty, but containing numerous tubercle bacilli. A week after his first visit to me he had haemoptysis twice, and his temperature rose to 103° F. I saw him again six days later at his own home, in consultation with Dr. Rudd of Acton. The temperature had fallen to 101° F. I found a quite new dull area above the left nipple, with sharp crepitant sounds, and the former physical signs were more marked. Evidently the disease was progressing rapidly; but under persistent antiseptic inhalation he improved more than we had dared to hope, the temperature fell to normal, and remained normal. He kept his bed for five weeks. There was no more haemoptysis, and the cough became much less. He gradually increased in weight, and had gained 5 lb. in the eight weeks in spite of his severe attack. The physical signs were more advanced, and in addition to the cavity at his right apex there were signs of cavitation in three other situations. He was gaining strength, and was walking about two miles daily; cough not troublesome, still some sputum. He was advised to go to Bournemouth, and to wear his inhaler six hours daily and at night. I have not heard from him again, but I have heard indirectly that he is purposing to emigrate to South Africa, and that he has grown so much stouter that he has been compelled to have his clothes enlarged.

24. Miss M. R., aged 13, the daughter of a medical man (deceased), had suffered from a "tuberculous finger" at 6 months of age; it was opened surgically, and healed slowly. For about a year she had had cough and some pain in her side. Sputum scanty, and did not contain bacilli. Signs at all four apices and four lower areas. Under the use of continuous antiseptic inhalation her cough ceased in a week, and in six weeks she gained 14 lb. in weight. I saw her again five months later, and found a further increase of 11 lb.; total gain, 25 lb. She looked and felt extremely well.

25. Mr. A., aged 37, brought by Dr. Higgens, of Hornsey Road. Cough five weeks; loss of weight, 7 lb. Signs at all four apices and four lower areas, with a cavity at the right apex. No sputum. Under treatment by continuous antiseptic inhalation he improved steadily. Gain of weight in the first three weeks, 5½ lb.; during the next month, 5 lb.; subsequently, 7 lb.; total, 17½ lb. His employers having generously allowed him a complete holiday, he was able to use the inhaler during nearly the whole of the twenty-four hours for the period of five months. When last examined, on August 4th, he was perfectly well, the cavity having become obliterated. Since then he has gained 2¾ lb., and for three months has done his full work without fatigue.

26. Rev. W. W., aged 42, a patient of Dr. Wilkin, of Newmarket. Ill eight weeks; loss of weight, 4 lb. Haemoptysis ten days ago. Two brothers had died from phthisis, aged 38 and 48. Signs at all four apices and three lower areas. Under treatment by continuous antiseptic inhalation he gained 9 lb. in the first three weeks, and 11 lb. during the following month. He improved rapidly, and when examined on October 13th there were no active signs in his lungs, and he had gained 6 lb. more: total gain, 26 lb. Was doing full clerical duty without fatigue.

27. Miss S., aged 34, sent by Dr. Havell, of Felixstowe. Aching pain in her right chest, with sense of constriction and some dyspnoea for nine months previously; worse during the last six weeks. Very slight haemoptysis. Signs at all four apices and two lower areas, with a cavity at the right apex. No sputum. Under antiseptic inhalation, continuous so far as her duties would allow, she has slowly and steadily improved. She has gained 3½ lb. in weight, her cavity has slowly decreased, there has been no cough for some time, and only occasionally any pain. She is doing her full share of work without fatigue.

28. C. H., aged 9, the ill-developed and half-starved child of very poor parents, living over a stable, was found on April 30th, 1909, to have signs of tubercle at both apices of the right lung and at the upper apex of the left. His weight was only 3 st. 6½ lb., or 12 lb. below the average weight for his age. He had enlarged cervical glands and many carious teeth. My colleague, Dr. Willcox, kindly admitted him into St. Mary's Hospital, and treated him by continuous antiseptic inhalation. The carious teeth were extracted. He improved rapidly. When I examined him again on July 5th he had gained 3½ lb. in weight, the dull areas were smaller, and the signs of active lesion had subsided. But his conditions of life are most unfavourable. On October 5th his weight was still 3 st. 10 lb., as in July; his cough had returned, and I found evidence of fresh implication of the left lung, the right lung being no more involved. Dr. Willcox kindly again admitted him into hospital, and he has once more improved and again gained weight. But one cannot but fear that the domestic conditions will prove too hard for him.

29. Mr. N., aged 28, sent by Dr. Wilson, of Boston, May 7th, 1909. Cough for six weeks; loss of weight, 2½ lb. His sister, aged 25, died from phthisis after an illness of two years. Signs at all four apices and two lower areas, with some evidence of cavitation at the right apex. Gain of weight after three weeks of continuous antiseptic inhalation, 7 lb. A month later, after a stay at Margate, where he did not feel well, he was found to have lost 3 lb. The physical signs were stationary, but he had brought up some blood. This was due to bleeding gums round some very foul teeth. These teeth were extracted, and he again improved. On October 15th he was found to have gained 14 lb. since his first visit; there was no sign of activity in his dull areas of lung. He felt and looked very well, and was doing his full work without fatigue. He was dismissed as cured, but advised to wear his inhaler for two hours daily during the next three months.

30. Mr. R., aged 30, seen at his home in East Ham, with Dr. McKettrick, July 27th, 1909. Cough for two months; haemoptysis, lasting several days, two weeks ago. Sputum mucoid. Extensive signs of tubercle in both lungs, at all four apices, and five other areas, with some signs of cavity at the right upper apex and moist crackles at the left lower. I formed a very unfavourable opinion of his prospects. We at once instituted treatment by continuous antiseptic inhalation. On October 16th Dr. McKettrick wrote to me that "Mr. R. is now in Devonshire, putting on flesh rapidly, and his lung condition has improved very much"

P.S., November 30th, 1909.—Mr. R. wore his inhaler day and night persistently for a month. For eleven weeks he has lived in the open air at Lyme Regis. He has gained twelve pounds in weight, has hardly any cough and almost no expectoration, and has been able to climb the Dorset hills. There is still a cavity at his right apex with slight local tenderness and slight occasional local pain, but there is hardly any crepitant sound, and all his dull areas are much smaller. He feels well and hopes to resume work in January.

This is, I think, a complete list of all the cases of incipient or early pulmonary tuberculosis which I have treated by continuous antiseptic inhalation, and in which I have been able to watch the progress or to ascertain the result. Every one of these 30 cases has shown marked improvement. This is surely a most encouraging fact. I consider 22 out of the 30 as certainly cured. In 13 of them the cure has stood the test of time, for they have all remained well and in active work for a whole year. These are Cases 2, 3, 4, 5, 6, 7, 8, 9, 12, 13, 14, 15, and 16. To these may probably be added Case 1. Eight other cases, Nos. 18, 19, 21, 22, 24, 25, 26, and 29, are apparently quite well, but they have not yet stood the test of time. Five cases—Nos. 10, 11, 17, 20, and 27—I look upon as nearly cured. Only 3 cases remain about which one feels any doubt as to the favourable issue; they are Nos. 23, 28, and 30, and all these 3 cases have improved very considerably.

In the later stages of pulmonary tuberculosis the treatment by antiseptic inhalation will sometimes relieve cough and diminish expectoration, but it cannot be expected to cure. Let no one make trial of this method in advanced phthisis and then report that he "has obtained negative results." Of course he will obtain negative results. When the whole house is burning the most strenuous efforts of the fire brigade may be powerless, yet at its beginning the fire might have been extinguished by a mere pailful of water. If we are to succeed in arresting pulmonary tuberculosis we must attack it in its earliest stage. At present cases are too often allowed to drift into a serious

and even into an irremediable condition simply because the practitioner has not learned how to diagnose an early tuberculous infection by means of careful percussion. Yet this possibility is within the reach of all if a correct method be adopted. And here let me lay stress on the necessity for a complete relaxation of the patient's muscles. For the front of the chest, the patient must lie on his back on a comfortable couch and be placed completely at his ease. With the patient standing or sitting up it is impossible to ascertain the facts correctly, and some of the published pictures illustrating the "method of percussion," with the patient erect, are excellent examples of "how *not* to do it!" For the posterior aspect of the thorax, the patient should be sitting with his back to the physician; he should place his hands on the anterior aspect of the opposite shoulders, and should bend gently forwards.

In this paper I have endeavoured to maintain two propositions. The first is that the detection of pulmonary tuberculosis before any bacilli appear in the sputum is within the reach of any medical practitioner who is willing to take a little trouble. The second is that pulmonary tuberculosis detected at this stage can always be arrested by treatment by continuous antiseptic inhalation. It may be that some exception to both these statements may be found, but if these two propositions can be established, or if they are even approximately true, it is not too much to say that the practical extinction of the disease known as pulmonary phthisis is within our grasp. Since the essential point is a careful percussion, we may say that the secret of success is very literally *in our own hands*. I believe that within three or four years an enormous reduction of the mortality might be effected.

SEVERE PERSISTENT HAEMOPTYSIS

CHECKED BY INTRAVENOUS INJECTION OF NORMAL SERUM AFTER OTHER MEANS HAD FAILED: SUBSEQUENT COMPLICATIONS: RECOVERY.

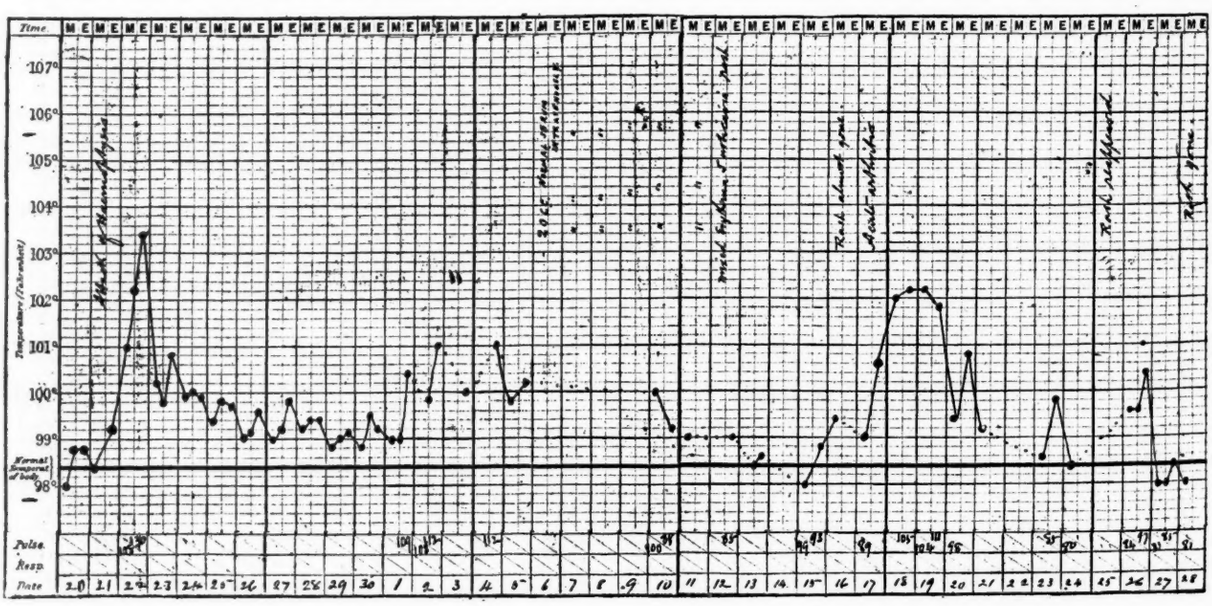
By THOMAS W. DEWAR, M.D., C.M., F.R.C.P.E.,
DUNBLANE.

ONE of the most mortifying experiences which can befall a physician after piloting a case of pulmonary tuberculosis to an apparently satisfactory recovery is to lose his patient from a sudden haemorrhage. It is admitted that in presence of this catastrophe we are virtually helpless, and in the multitude of treatments advised, that meeting with anything like general acceptance is smart purgation, sedatives hypodermically, and the local application of ice. The method employed in the case to be described, and only as a last resort, seems therefore to justify a short note.

It is unnecessary to detail the insidious onset of pulmonary tuberculosis in a man of 43, its sudden outburst coincidentally with an attack of pneumonia, or its steady passage to a widely disseminated infection with bilateral pleurisy, cavity formation at one apex, and constant pyrexia. Suffice it to say that after a long fight the fever abated, the lungs dried up, and tubercle disappeared from the sputum (microscopically). The treatment adopted was intravenous injections of an ethereal solution of iodoform diluted with from 20 to 30 per cent. of liquid paraffin (a 15 per cent. solution of lecithin in ether being occasionally substituted for the paraffin). All treatment had been discontinued for about eight months, and the patient appeared quite well and had returned to work. The haemorrhage broke out on June 21st, 1909, as he was sitting down to supper. The following remedies were tried:

(*a*) Complete rest in bed in a cool room semi-recumbent.
(*b*) Not allowed to speak.
(*c*) Icebag over cavity.
(*d*) Cold packs to abdomen and hot bottle to feet.
(*e*) Three grains of calomel followed by ʒj of castor oil.
(*f*) Morphine and atropine hypodermically.
(*g*) Inhalations of nitrite of amyl.
(*h*) Hypodermics of ergotinine.
(*i*) Calcium chloride in large doses orally.
(*j*) Calcium chloride in large doses (enemas).
(*k*) Suprarenal gland.
(*l*) Ten c.cm. of normal serum by the mouth thrice a day.

In spite of these, the haemorrhage went on in increasing amount, and having continued uninterruptedly for sixteen days he was blanched and in a state of great prostration. After immersing his hand in a ewer of hot water and applying a handkerchief tightly round his forearm, I managed to distend the radial vein at the wrist sufficiently to introduce a needle and injected 20 c.cm. of normal serum. The result was gratifying. Bleeding seemed to stop almost at once, as any further expectorations were dark and evidently the remains of the blood already effused. These soon became mixed with muco-pus and in a few days all traces of blood had disappeared. The injections of 20 c.cm. were administered every day for six days and apart from their styptic effect seemed to benefit the patient in every way. But our troubles were by no means ended. An acute attack of "serum disease" supervened. On the sixth day of the intravenous injection of normal serum a slight rash appeared on the cheek and soon invaded the whole body, appearing, disappearing, and reappearing in a most tantalizing way. In character it was a mixture of erythema and urticaria. There was also a rash on the buccal mucous membrane and fauces, great swelling in the pharynx, and from his altered voice and breathing evidently some oedema of the glottis. The sterno-mastoids were swollen and hard. He could not move his head, swallowing was exceedingly painful, and his efforts to clear his throat of the glairy mucus exactly simulated a quinsy at its height. His jaws became locked, so that nothing could be done locally to relieve his distress, and but for the comfort that the bleeding had stopped there was little to congratulate oneself upon. The itching was intolerable, and even morphine gr. ¼ with atropine hypodermically, in addition to 1-gr. pills of opium three times a day, failed to secure restful sleep. Hyoscine gr. $\frac{1}{100}$ hypodermically induced great cerebral excitement but no sleep. Veronal in 5 and 7½ gr. doses in conjunction with sodium salicylate and sulphonal in 10-gr. doses were also tried as hypnotics, but the only result was delirious nights and abject misery in the mornings. After veronal and sulphonal he



complained of a feeling of a tight band round his head and that his self-control was gone. He felt demoralized, and begged that no further efforts should be made to help him to get sleep. After this a cup of hot tea during the night gave a little sleep, and as the irritation gradually subsided he passed better nights. Locally camphor in hard paraffin succeeded better than soda fomentations or lead and opium, but it is evident from this account that treatment did little, if anything, to relieve any of his symptoms. The throat gradually got better and the rash was not followed by desquamation. The day following the disappearance of the rash he had an attack of acute arthritis affecting the temporo-maxillary and wrist joints, and to a slight extent the ankles, with pains in the muscles of the forearms, back, and neck. This was greatly relieved by 10-gr. doses of salicine thrice a day. He was free from pain on the eighth day. On July 25th the rash reappeared and persisted for four days. The chart is not very complete, but there are a sufficient number of observations recorded to indicate the course of the illness.

It is alleged, first, that the previous exhibition of calcium salts will prevent the appearance of serum rashes, and, secondly, that they are less likely to recur if the second dose of serum is administered within a few days of the first. Now for many weeks prior to his haemorrhage my patient had been taking calcium to counteract a tendency to constipation, and after its onset he got large doses orally and also by enema; also during his haemorrhage he took 30 c.cm. and sometimes 40 c.cm. orally in the day for sixteen days. Again, after the intravenous injections were begun they were continued daily for six days. From this it is evident that neither the previous administration of calcium salts nor the quick repetition of the serum dose can be depended upon to obviate these unpleasant complications. It is also worthy of note that normal serum administered by the mouth may fail absolutely to arrest pulmonary haemorrhage and yet succeed at once if injected intravenously. If it is asked why, having stanched the bleeding with the first intravenous injection of serum, I persisted in them for five days, I can only plead the desire to make sure in a desperate strait and the benefit the patient seemed to derive from them otherwise. He is now rapidly recovering from his anaemia, and the little sputum he has does not show tubercle microscopically (August 25th). In spite of this unpleasant experience, I would not hesitate to inject normal serum again to arrest haemoptysis, but on the next occasion I shall not waste time giving it by the mouth. I hope others may be induced to try it and publish their results, for the value of a reliable styptic in bleeding from the lungs cannot be over-estimated.

A PERSONAL INVESTIGATION INTO THE DIETETIC THEORIES OF AMERICA.*

BY ALEXANDER BRYCE, M.D.GLASG., D.P.H.CAMB.,
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AN endeavour to reconcile the divergent and apparently hostile dietetic theories which have reached us from America having proved futile in the privacy of my study, in the early part of this year I undertook an investigation on the spot. It was my earnest hope that I might be able to discover a *via media* which, although not capable of fully explaining the differences of opinion, would at least provide a satisfactory working rule in practical dietetics.

BATTLE CREEK SANITARIUM.

With this end in view, I decided to commence my research at the Battle Creek Sanitarium in Michigan, a large institution where vegetarianism, or at least flesh abstinence, is practised. My reason for selecting this establishment for breaking ground on the subject was not because I was a vegetarian, or in any way committed to its doctrines or practice, but because its superintendent, Dr. J. H. Kellogg, cordially invited me to make full use of the excellent research laboratories attached to the institution, whilst I was at the same time able to make observations on the patients and guests in the establishment. I was, therefore, entered as a patient under the care of Dr. C. E. Stewart, and instructed to sit for three days at the test-meal table in the dining room, where a skilled attendant assisted me to select my viands in accordance with prescription.

In common with several others, I had an early rise next morning in order to consume the non-appetizing *Zwieback* used in the test meal for obtaining the stomach contents and a sample of the saliva. The urine was carefully collected for twenty-four hours and a sample of the faeces obtained. Once a week the weight, blood count, and blood pressure were recorded. Although I was unfortunate enough to be compelled to succumb on the second day of this severe ordeal, I was astonished to find that out of the 500 patients, most of whom had been living on the usual American diet of three meals a day, supplemented in many cases by large potations of alcohol and excessive indulgence in tobacco, an incredibly small number appeared to have any objections to or be affected in a deleterious manner by the great change. My own sufferings revived the most vivid recollections of two previous attempts to become a vegetarian, and I mentally decided that if I made a fourth attempt I would at least do so in a deliberate and cautious manner.

With my preconceived notions of a sufficiency of protein, meaning thereby the 100 to 125 grams of Voit and Atwater, I found the greatest difficulty in selecting my food from the unaccustomed viands on the daily menu, for which I was unable to summon up the slightest appetite. I do not know whether the efforts of my table companions to make their respective items fit into the caloric values prescribed by their medical attendants was in any way contributory to the result, but it did not improve it. I ought to say that the menu was constructed on a novel principle, each article of food being served in what was called—after Professor Irving Fisher—a "portion" or part of a portion (one "portion" representing 100 calories), and having its constituent protein, fat, and carbohydrates tabulated in calories. Breakfast, about 8 a.m., was supposed to consist of about 800 calories; dinner, 1.30 p.m., 1,000 or thereby; and supper, at 6 p.m., the balance of 2,400 calories. In addition to being fleshless, the diet was of the variety termed "low protein," and was constructed as nearly as possible of 10 per cent. protein, 30 per cent. fat, and 60 per cent. carbohydrate. It was likewise purin-free, and no beverage except milk, a variety of curdled milk called "yogurt," apple juice, grape juice, water, and a sample of the scorched cereal preparations to resemble coffee, was allowed.

According to Dr. Kellogg, the essential feature of the diet was that it was antitoxic, by which he meant that it contained no substance nor any ingredient likely to be converted into a toxin in the alimentary canal, and so produce autointoxication. He subscribes to the doctrine that no protein is stored up in the system, and hence every particle beyond 60 or at the most 70 grams a day is broken down in the colon by the proteolytic anaërobic bacteria, forming indol, skatol, phenol, leucin, tyrosin, muscarin, cadaverin, etc.

I do not doubt that when this diet can be digested and assimilated, which is probably the general rule, the results of its adoption are excellent, at least temporarily. I was told that only a very small proportion of the patients adhered to it when they left the institution, but that the larger number went home determined to live more hygienic lives on a smaller supply of meat. As was to be expected, I heard of quite a number who had broken down under the system, and of these I had personal acquaintance with four. Probably with greater caution in the transference from one system to another, these might be prevented. I am bound to add that whilst the nurses and doctors appeared to have a fair amount of vigour, they did not look at all like the healthy type of person we are accustomed to in England, but it must be remembered that it was from amongst them that the men were selected who demonstrated their superiority in the endurance trials against the selected meat-eating Yale athletes.

BUREAU OF CHEMISTRY, WASHINGTON.

The pleasure of my visit to the Bureau of Chemistry in the Department of Agriculture at Washington, D.C., was marred by the fact that its president, Dr. Harvey Wiley, had just departed for London to attend the seventh International Congress of Applied Chemistry. This in no way interfered with the work which I was permitted to do in the laboratories, which are on the eve of being transferred to a capacious new home. Dr. Wiley has been kind enough to forward me a short

* A paper read before the Birmingham Branch of the British Medical Association.

statement of his experience in dietetics. He believes diet is an important factor in the production and cure of disease, and the most preposterous dicta he has ever heard concerning diet have not come from teachers of dietetics and cooking, but from physicians themselves. In his opinion, in the progress of medical education the near future will see the professorship of dietetics in a medical school advanced to the same rank as that of medicine, and he even asserts that the practice of medicine in the future will be largely a practice of dietetics. He thinks the human animal selects his food naturally, and that the proportion of protein to other constituents which we find in naturally-selected dietaries is about right. He neither favours a very high nor a very low protein ration, but moderation in all things. He does not believe that the low protein theory is at the present time either established or disproved by scientific data, and he asks whether it may not be possible that excessive mastication—that is, converting the meal into a mere mechanical exercise—may not in the end threaten the human family with great dangers of insufficient nutrition.

BOSTON AND HARVARD.

My visit to Boston was less prompted by the idea of inspecting the medical school than by the certainty of an interview with Dr. Francis G. Benedict, who has been commissioned by the Carnegie Institute of Washington to build and equip a laboratory entirely devoted to the study of nutrition. How well he has succeeded is evidenced by the fact that already he has installed two of the finest calorimeters in the world, which are in daily use, and that he is looking forward to the time when, at no distant date, he may possess three more. His work for many years to come is to be confined to the study of the production of energy in man and the lower animals. It is from this point of view that he may be looked upon as the most able opponent of Chittenden's low protein theory. His views are much the same as those of Dr. Wiley, although he is essentially an advocate of a high protein ration. He is much inclined to doubt Chittenden's results, and wishes to see the tests repeated under his own personal supervision. He believes that it is quite possible to live on a low protein diet, but not that a sufficient supply of energy can be manufactured without a very much larger supply of food than is maintained by either Kellogg or Chittenden. He states that it is only necessary to know the daily energy output to determine the energy requirement, for the energy output is practically the energy requirement. He finds that a man of average size weighing 66 kg. and at rest within the calorimeter, has an energy requirement for twenty-four hours of not far from 2,270 calories. Naturally the average individual outside the calorimeter, pursuing his ordinary course of life but not engaged in any occupation, would actually require more than this, because with the greater liberty to move about, the movements of the body would call for the utilization of more energy. It is interesting to know that he subjected Mr. Horace Fletcher, who was the first man upon whom Professor Chittenden experimented, to a calorimetric test. From his study of Mr. Fletcher's diet, Professor Chittenden came to the conclusion that Mr. Fletcher was able to hold his own with 1,700 calories of energy. During this period he was undergoing an unusual amount of muscular exercise with the Yale University crew, and yet on a small quantity of food not only was nitrogen equilibrium maintained but his body weight also remained practically unchanged. During the three days of the residence in the respiration calorimeter his average output of energy was 1,896 calories, whereas the amount of energy actually derived from the food averaged only 1,357 calories. To make good this discrepancy, therefore, Mr. Fletcher was compelled to draw upon his body material for 541 calories, and the data of the experiment from which the gain or loss of body material is determined show that he actually lost body material sufficient to supply this amount of energy. Dr. Benedict, therefore, concludes that during the Yale experiment Fletcher's energy output could hardly have been less than 3,000 calories. The 1,300 calories representing the difference between the intake of energy as estimated in the food and the probable output during the excessive muscular exercise, could be accounted for by the combustion of 150 grams, or about $\frac{1}{3}$ lb. of body fat. In the course of the short experiment of six or seven days there may easily have been a loss of 1 or 2 lb. of body fat, compensated by a gain of 1 or 2 lb. of water in the body, so that the body weight would remain unchanged. Fat and water constantly replace each other in the tissues. With an excess of carbohydrate in the diet the tendency of the body is to retain water in the tissues, whereas when fats largely predominate the tendency of the body is to lose water. In unpublished experiments upon other low protein advocates Dr. Benedict came to the conclusion that they took food of 40 per cent. more caloric value than they believed.

I found Professor Folin rather inclined to be conservative in the expression of his views. He believed that the average man can adapt himself to any form of diet, one with a low protein content for preference. He considers that all forms of protein are equally well absorbed, but that flesh contains something besides the protein, which gives it a more stimulating character than vegetable protein. He is satisfied that it is possible for autointoxication to arise in people who take an excess of carbohydrates or fats, and that there are people who can tolerate a larger quantity of proteins with a minimum of carbohydrates and fats rather than a smaller quantity of proteins with a maximum of carbohydrates and fats. But he considers that much work remains to be done on the subject. Professor Folin's observation that the same quantity of kreatinin was always present in the urine of people living on a flesh-free diet undoubtedly paved the way for the formulation of his brilliant theory of protein metabolism. Stated briefly, this is as follows: The food proteins are tissue builders solely by reason of their nitrogen content. The muscle tissues of a normal man—unlike those of carnivorous animals—do not increase when the protein of the diet is increased. Instead thereof, all the nitrogen of any excess of protein is eliminated at once, and hence cannot be required to build new tissues, which have a limit to their growth. In other words, when nitrogen equilibrium is established, the body does not store up the surplus nitrogen in the food, but excretes it as rapidly as possible. The reason is that there are two forms of protein metabolism—that carried on in the tissues, or endogenous, and that conducted among the circulating proteins in the blood, or exogenous. Only a small amount of protein—namely, that necessary for the endogenous metabolism—is needed. The greater part of the protein furnished by a standard diet like Voit's—that is, that part representing the exogenous metabolism—is not needed, at any rate so far as its nitrogen is concerned, but by a process of hydrolysis is split up into urea, which is rapidly excreted, and a non-nitrogenous or carbonaceous portion, which is doubtless utilized by the economy in the same manner as the other ternary bodies. These, we know, are by a process of oxidation decomposed with the evolution of heat, which can be converted into mechanical energy.

YALE.

I was pleased to discover that Professor Chittenden is as much admired for his personal qualities as for his capacity in research, and he spares no pains in assisting every eager worker with whom he comes in contact. I am specially indebted to him for many hours of interesting conversation on the subject of diet and metabolism. His own views on the question of diet may be crystallized into the statement that he believes in a low protein mixed diet for the following reasons: (1) Because no nitrogen can be stored in the tissues; (2) because excess of protein tends to disseminate toxins throughout the body; (3) because energy is dissipated in excreting the surplus protein; (4) because there is no necessity to indulge in muscular exertion to aid in working off surplus protein, and hence energy is saved; (5) because a combination of animal and vegetable proteins is essential for the requirements of the body.

With regard to his famous experiment which compelled him to adopt these views, he said that his reason for undertaking it was that he was not satisfied that the observation made by Voit and Atwater into the dietetic habits of the people had established the true physiological nutritive requirements of the body. His aim was to demonstrate the true nutritive requirements of the body as contrasted with dietetic habits, and he required that during the experiment the four following points be considered: (1) That nitrogen equilibrium be maintained;

(2) that physiological equilibrium—that is, the body weight—be maintained; (3) that physiological efficiency be maintained; (4) that the ability to resist disease be not decreased. He discussed with me in detail the various criticisms of his theory, especially with regard to the following three points: (1) The fact that the body weight was maintained by a retention of water in the tissues in place of fat which was destroyed; this, he said, might explain physiological equilibrium for a few weeks but certainly not for 225 days. (2) He combats the view that a diet rich in protein is likely to increase the resistance to disease. Dr. Reid Hunt, of Washington, fed two groups of dogs on a high and low protein diet respectively. The same poison was then administered to each group, and it was found that the low protein dogs could withstand a three times greater dose than the others, hence proving that they had a greater resistance to morbific influence. (3) With regard to the statement that the Japanese navy had found that a high protein diet was accompanied by a diminution in the number of cases of beri-beri, he contended that it did not necessarily follow that the increase of protein was the cause. He thought that it was much more likely that other elements were introduced into the food capable of accounting for the disappearance of the disease. Protein pure and simple is unlikely to be utilized as a food in the body. It is much more likely that it requires to become a salt of lime, potash, or soda before it can be available for dietetic purposes. He thinks the mineral salts introduced with the protein prevented beri-beri, much in the same way that lemon juice prevents the appearance of scurvy.

His able coadjutor Professor Mendel, who occupies the chair of Biological Chemistry, informed me that he considered that the great experiment had at least established the protein minimum requirements of the body. As he personally was rather a hearty eater, the only way he could adopt a low protein diet was by becoming a vegetarian, and this he did for the full 225 days. After the experiment he returned to a mixed diet with less protein than formerly, because he believes that this is the one best fitted to subserve the proper nutritive requirements of the body.

Dr. W. G. Anderson, who is Director of the Yale Gymnasium, informed me that on account of increasing fatigue and loss of endurance he dropped his high protein diet at the time of the great experiment and adopted a low protein one, with the result that he is now in the best of health and condition. His chest capacity had increased by 2 in., and his muscles, which I had the privilege of feeling, were as hard as iron bands.

Professor Irving Fisher was kind enough to inform me that on account of a serious breakdown in health he was advised to adopt a system of overfeeding. Although by this means he was about to rout the disease which threatened to overwhelm him, he experienced a great lack of energy, and had no capacity for endurance. Since, however, he had adopted the low protein mixed diet, his production of energy and capacity for endurance left nothing to be desired. He certainly looked the picture of health.

THE THREE CLASSES OF FOOD REFORMERS.

In reviewing the whole situation, one can hardly escape the conclusion that, after all the experimentation, we are not much further forward than we were. The doctrine of moderation in all things has been promulgated for many centuries, but it is not preached to-day with any more fervour than in the past. The three chief sections of dietetic reformers are: (1) Flesh abstainers, (2) purin-free feeders, (3) low-protein feeders. I am well aware, of course, that there are endless subdivisions of these classes on such minor points as salt-free food, yeast-free food, and so on, but these are non-essential points of difference of no great moment. Nor am I forgetting the system founded upon the theory of hyperpyraemia, but I think its author does not insist upon its adoption as a diet in health so much as a treatment in disease. When we endeavour to reconcile these various sects, we find the effort almost hopeless, as they all claim great advantages for their dietetic methods, but are at variance on the main principles. At first sight it might appear as if Classes 1 and 2 were similar, if not indeed identical, as they both agree in being fleshless and in the main purin-free, but they are at daggers drawn on the question of the amount of protein, Class 1 insisting on 6 grains per lb. weight of the body, whereas Class 2 declares that without at least 9 grains per lb. weight of the body breakdown is sure to occur sooner or later. A minor point of difference in these two sections is that Class 1 derives its protein from legumes, nuts, and cereals, whereas Class 2 depends chiefly on cheese and other milk products. The purin-free devotee declares that there are excessive quantities of purins in legumes, and even nuts are not free from them, whereas the flesh abstainer stigmatizes cheese as a product of putrefaction, and if he ever uses it does so in its perfectly fresh state. It is quite conceivable that if legumes and nuts, or even cheese, were to disagree with any individual digestion, a much larger quantity ef endogenous purin would be excreted, due to the greater breakdown of tissue cells.

The flesh abstainer, who in the great majority of instances has selected his dietary from humanitarian motives or religious scruples, is compelled to make up his caloric total by an increase of carbohydrates and fats, especially the former. To prevent the gastric discomfort which so frequently attends upon such diet he dextrinizes the cereals and specially prepares the nuts, and by this means doubtless provides the peptogens, of which he deprives himself when he eschews purins.

In a paper read before this Branch last year on the Limitations of a Purin-free Diet,[1] I gave the results of a fairly extensive experience in the application of that diet. It appeared to be tolerated for twelve months or thereabouts in the majority of cases, and then anaemia and dyspepsia supervened with disastrous consequences. The opinion I formed then was that the deprivation of the peptogens in the purins and the unaccustomed proteins in the cheese, etc., were chiefly responsible for the trouble. It is quite likely that the increased starchy content of the food had something to do with the matter, and possibly dextrinizing might be of great assistance. The flesh abstainer, however, declares that the chief reason is the excessive quantity of protein contained in the diet, and, as on this point he agrees with the third class of dietetic reformer, I should like to mention some of the advantages claimed for a low protein, fleshless diet, and for this purpose will make extracts from a paper read by Dr. J. H. Kellogg before the International Congress on Tuberculosis at Washington last year on "Diet as a means of increasing vital resistance in tuberculosis, with special reference to the protein ration."

THE ADVANTAGES OF A LOW PROTEIN DIET.

From thirty years' observation on thousands of patients and attendants in Battle Creek Sanitarium, he contends that the following obvious advantages are rapidly brought about: (1) Clearing the skin, the disappearance of skin eruptions, sallowness, etc., and rapid improvement in colour and texture of the skin; (2) improvement in the blood count and in the haemoglobin, 12 per cent. in the former, and 15 per cent. in the latter; (3) a notable fall in blood pressure, from an average of 181 mm. Hg to 158 in a fortnight's time. As no pressure-lowering drugs were administered, he attributed this fall to the suppression of pressure-raising toxins produced in the alimentary canal, and the better elimination of tissue wastes.

Professor Zuntz of Berlin informed him that protein requires a much greater expenditure of energy in its digestion and utilization than the other food principles. The energy required for the digestion of fats is only 2½ per cent. of the total energy represented, whereas that required for starch was 10 per cent., and that for protein was 16 per cent. The burden thrown upon the liver and kidneys by excreting the excessive quantities of urea and uric acid on a high protein meat diet is at least four times greater than that on a low protein, fleshless one, and there is a marked diminution of the alkalinity of the blood. This results in deficient oxidation of protein and accumulation of waste products in the blood and tissues. These are of a highly complex character, taxing the kidneys, liver, adrenals, thyroids, and other organs, whereas the metabolism of fats and carbohydrates simply produces CO_2 and H_2O, which are easily eliminated without harm.

He conducted many experiments and made many analyses of excreta showing that intestinal putrefaction is directly proportional to the amount of protein in the dietary, as much as twenty times the amount of indol in

the faeces and indican in the urine being produced by low protein fleshless feeders who were put on a high protein meat diet. At the same time they displayed symptoms due to this increase of protein, such as headache, loss of appetite, loss of energy, and general malaise. A striking table is quoted showing the amount of indol produced in equal quantities of various foodstuffs (25 grams) mixed with 10 grams of human faeces, and incubated for three days. The figures were an average of 8.54 mg. of indol for meats, 1.045 for milk products, 0.181 for vegetable foods, whilst cereals were 310 times less toxic on this method of examination than mutton, which, strange to say, was the most toxic flesh food.

Beisacher has shown that the removal of the thyroid gland of a dog is quickly followed by death if the animal is fed upon a meat diet, while life is prolonged indefinitely and the animal enjoys good health when fed upon a diet of bread and milk. Blum and Kishi hold that the function of the thyroid gland is to neutralize the poisons derived from the putrefaction of albumen in the intestine.

In the ingenious Eck fistula experiment an anastomosis is made between the portal vein and the vena cava, a ligature being applied to the portal vein close to the liver, thus cutting out the liver from the portal circuit. A dog thus prepared fed upon meat dies in three days; when fed upon bread and milk the animal lives in excellent health for an indefinite length of time. Pawlow has shown that the urotoxic coefficient of such a dog is trebled after tying the portal vein, showing that the liver has three times more work to do on a high protein flesh diet than on a low protein fleshless diet.

Hirschfield has shown that with a diet of 70 grams of albumen a healthy kidney eliminates 10.1 grams of nitrogen, a diseased kidney 9.3 grams. When the albumen ration is increased to 130 grams the healthy kidney eliminates 14.5 grams, and the diseased kidney only 11.7 grams, and this disproportion increases the longer the high protein diet is maintained.

Flesh foods contain on an average 200,000,000 putrefactive bacteria in every gram, so that it is appalling to think of the number one swallows in the course of a day. It is comforting to think that Nature has provided the body with many defences against this terrible risk of poisoning: the most important, of course, being in the hydrochloric acid of the gastric juice, and the maintenance of the effective digestive capacity in the stomach and small intestine. We can see, therefore, how it is wise in old age, when the acidity of the gastric juice is diminished, to lower the flesh ration. The mucous membrane of the intestine next exercises a protective function, not only in its epithelial cells and leucocytes, but also in the outflow of mucus which hinders the absorption of the poisons by preventing their contact with the living tissues.

The liver and thyroid gland, as we have seen, and probably other antitoxic glands, are likewise on the look-out for any poisons which may escape the toils of the gastric juice and intestinal mucous membrane, so that the healthy man is fairly capable of dealing with the poisons contained in a flesh diet, a fact of which we have abundant evidence every day of our life.

Most of these facts are already familiar to those who have read Combes's treatise on "Autointoxication," and it is recognized that there are at least four efficient reasons why autointoxication does not exist in healthy people, even although all the local conditions may be present in the alimentary canal. Where, however, hypochlorhydria is present, or the colon is catarrhal, or the liver and the thyroid and other glands are defective in their activity, the toxins are admitted into the blood and exert their malign influence on the body.

Conclusions.

An attempt to reconcile the doctrines of these three sects will apparently meet with little success.

The low protein feeders admit flesh into their dietary, have not the slightest objection to purins in soups or xanthins in tea, coffee, etc., and lay no special stress upon the observance of other laws of health, such as the necessity for exercise, abstention from tobacco, etc.

The purin-free feeders expunge all purins and xanthins from their diet list, insist upon at least 50 per cent. more protein, and one would be disposed to infer from reading the published treatise of its author that these are the only practices essential to perfect health.

The flesh abstainers agree with the low protein advocates in the smallness of their protein content and with the purin-free feeders in their objection to purins and xanthins, but, in addition to this, expunge every possible toxin from their diet list, and place the greatest emphasis on the performance of every known law of health. Their chief apostle, Dr. Kellogg, preaches the necessity of three evacuations of the bowel each day, and for this purpose consumes at each meal liberal quantities of agar-agar in compressed tablet form.

The one thing upon which they all agree is in the diminished amount of food, and so we come back to the fundamental doctrine of moderation in all things, which has not only been taught from time immemorial, but is actually practised by all sensible men at the present time. It is quite possible that the sedentary man may err in eating a little too much animal food, but this is practically forced upon him by his habit of taking too little exercise. But the average man will be very much surprised if he will sit down and carefully estimate the caloric value of his day's food. He will most likely find that it is very much below the 40 calories per kilo, amounting to over 2,500 calories per day, allowed by von Noorden, to say nothing of the 3,000, 4,000, and even 5,000 calories mentioned by some other authorities. I have frequently estimated the caloric value of my own diet, and have sometimes been depressed because I could not get it to exceed 1,800 calories. I have been much comforted, however, to discover in a little book by Max Einhorn on diet and nutrition that his own average was 1,650, or 32 heat units per kilo, and this was on a mixed diet, which, he informed me, he was profoundly convinced was the only rational dietary for a healthy man. Probably most men conform more closely to the low protein diet than they are willing to admit. The healthy man can live on any system of diet by attention to moderation and regularity, but the unhealthy man must look to the dietetic expert to guide him in the selection of the best system or kinds of food to suit his case.

Reference.
[1] British Medical Journal, 1908, vol. ii, p. 1327.

THE TREATMENT OF CHLOROSIS.*

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Chlorosis is a very common ailment, and, generally speaking, one that is readily and fairly quickly cured. Each of us probably has his favourites among the twenty or so pharmacopoeial preparations of iron, and it only occasionally happens that one comes across cases that resist one or other of them. Nor are we usually neglectful of the auxiliary methods of treatment, the regulation of the bowels to prevent intestinal toxaemia, the prescription of fresh air, and, above all, of proper food, since its occurrence seems to be so frequently bound up with improper diet. We do not, perhaps, often carry out the line of treatment suggested by my friend Dr. Eustace Smith,[1] who relates the cure of a case of chlorosis by means of small doses of zinc sulphate, which, by frequently clearing out the stomach, and by preventing the fermentative changes which had been going on in the alimentary canal, removed what he took to be the underlying cause of the disease, though there is another way of looking at his case which I shall refer to later.

But it does occasionally happen that cases come or are sent to us, in whom all the ordinary measures have been employed and found wanting, and on whom all the new, so-called "organic" preparations of iron which the skill of German chemists has evolved, and the enthusiastic if somewhat commercial advocacy of German physicians has pressed upon the profession, have been tried with little or no success.

It is particularly in these cases that the routine treatment which I shall describe is likely to prove of value, though even in the less stubborn cases it is of service since it shortens a good deal the time required for recovery.

* A communication to the Association of Physicians of Great Britain and Ireland, Dublin, June, 1909.

The method is based upon the researches of Haldane and Lorrain Smith, who have shown by their carbon monoxide method that in chlorosis, although the percentage of haemoglobin in the blood is so much diminished, the total amount of haemoglobin in the body is fully up to the normal; that is to say the anaemia is only relative, being due not to a deficiency of haemoglobin but to an excess of plasma. Theoretically, therefore, it should be possible, if we can only diminish the fluid portion of the blood, to cure chlorosis without the use of iron. What one has to aim at, therefore, is a reduction in the fluids of the body, and the prevention of reaccumulation, and there are a variety of means which may be employed to this end.

The removal of water by the bowel has long been recognized as a valuable line of treatment in chlorosis, so that a small dose of magnesium or sodium sulphate usefully forms a part of any mixture employed. The secretion of urine should be encouraged; citrate of caffein or diuretin may be employed, or theocin sodium acetate, which I have found the most reliable diuretic, in doses of 5 grains four times in the day. Whichever of them is used, it is well to give at the same time 5 minims of tinct. digitalis, since they may all prove ineffective unless the blood pressure in the renal glomeruli is properly maintained. Here, again, it is of interest to note that the empirical use of digitalis in the treatment of chlorosis has long been recognized. Loss of fluid by the skin may be encouraged by the use of jaborandi in some form, or by hot baths, vapour baths, or hot packs. I have never, however, found it necessary to resort to these measures, though in Germany, where hydrotherapy is more in vogue, some physicians lay great stress upon their use in chlorosis.

There is one other mode of removing fluid from the body which I have not so far made use of. That is the treatment, already alluded to, by small doses of zinc sulphate, by which repeated emesis was produced. Although Dr. Eustace Smith attributed the success of this line of treatment in his case to removal of fermenting food remains from the stomach, I am of opinion that the withdrawal of fluid from the body in this way played a part, if not the main part, in the case.

Not only, however, must this elimination of water by the bowel, by the kidney, or by the skin be encouraged, but the intake of water must be limited at the same time. In some of the cases in which I have asked the question, the patients have told me that they drank unusually large quantities of fluids, though in others I have failed to get this history. It is important to impress upon them the necessity of drinking less than they have been in the habit of doing; at the same time, I recommend them to take as little salt with their food as possible. The power of salt to retain fluid in the body is well recognized, and in persons whose kidneys are defective an excess of salt may lead to the appearance of oedema, and deprivation may lead to its disappearance. Indeed, it has struck me as a possible explanation of the origin of chlorosis, which is still wrapped in mystery, that the kidneys might be functionally incapable of secreting urine containing more than a certain proportion of salts, such as is well known to be the case in chronic interstitial nephritis, with resulting retention of salts and retention of fluids to keep the salts in solution. In this connexion I would refer to certain oedemas in young children. It is not uncommon to get sudden oedema, with pale, swollen face and puffy eyelids and swelling of the dorsa of hands and feet, which at once suggests acute nephritis. Examination of the urine, however, fails to reveal evidence of any organic kidney trouble; there is a complete absence of albumen and casts, and the condition appears to be due to a wholly functional inability of the kidney to excrete the normal percentage of sodium chloride, with consequent retention in the tissues and accompanying oedema. The rapidity with which the oedema disappears on a salt-free diet is startling, and fully bears out the suggested etiology of the condition. I have in prospect some experiments to determine the power of the kidneys in cases of chlorosis to get rid of excessive intake of salt, but so far, from my observations on the specific gravity of the urine in these cases, I do not get much support for my suggestion; it is not so constantly low as it should be if the explanation were correct. On the other hand, some observations of Moraczewski [2] though incomplete in certain ways, led him to conclude that the excretion of chlorides in the urine was sensibly diminished in cases of chlorosis.

I have had the patients weighed from time to time, and as they improved by the elimination of their excess of fluid their weight steadily fell. In one case the nurse whose duty it was to weigh the patient was seriously perturbed at the steady loss of weight, since in her previous experience the result to be looked for in successful treatment was a gain in weight.

Theoretically, as I have said, the disease should be amenable on those lines without the use of iron, but in the few cases in which I have followed this course without iron the improvement, though present, has been very slow, to increase rapidly on the addition of iron to the treatment. Practical considerations, therefore, must be allowed to outweigh pure theory. I have tried it now on a considerable number of cases with, on the whole, very gratifying results, particularly in those cases in which the excess of fluid in the body appeared most evident, in which the face, and in fact all the loose tissues of the body generally, had a distinctly "puffy" appearance.

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[1] BRITISH MEDICAL JOURNAL, 1908, ii, p. 1144.
[2] *Virchow's Archiv*, cxlv, p. 458, 1896.

CASE OF TETANUS TREATED WITH CARBOLIC INJECTIONS: RECOVERY.

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THE following case of recovery from tetanus may be of interest, since, in the absence of antitetanic serum, injections of carbolic acid proved of undoubted value.

A boy, aged 13, was first visited on June 22nd, 1909. His parents stated it to be then the third or fourth day of illness since the onset of spasms and difficulty in opening his mouth, and about the twentieth day from the date of injury. The seat of infection was a small cut on the left middle finger on the dorsal surface of the proximal interphalangeal joint. No attempt had been made to protect or clean the wound, and septic synovitis had resulted. His condition on examination was typical. His whole body, the arms excepted, was in a state of continuous rigidity; opisthotonos was marked and trismus severe. Paroxysms of increased rigidity occurred once in every thirty or forty minutes, sometimes oftener. In the intervals between the spasms his jaws could be separated for nearly ½ in. The temperature and pulse were normal, but he was pale and exhausted from lack of food and sleep. He was at once given an egg beaten up with brandy, and his finger washed and treated with caustic carbolic. Amputation being refused, the wound was opened as freely as possible. He was then given a mixed draught of potassium bromide and chloral hydrate, 15 grains of each, morning and evening, the dose being increased later to 20 grains. His parents were instructed to feed him as liberally as possible. After his strength had been recruited by sleep it was soon found that there was no lack of appetite, which was in fact exceptionally keen. He was fed chiefly upon a diet of raw eggs and a Chinese gruel made of egg and flour. Aperients were administered frequently to keep the bowels freely open, and according to the usual routine in our practice he was treated for *Ascaris lumbricoides*. On one occasion eight worms were passed in his stools, but the condition is so universal here that it bears no special significance in his case.

As his parents were convinced that there was no hope of recovery, and the Chinese all prefer to die at home, they refused to allow him to be brought into the hospital, and as they had not the smallest control over him and were helpless in administering the medicine themselves, it was necessary to visit him twice daily for that purpose. These visits were continued for fifteen days. During the first three days of treatment there was a slight improvement in his general condition, owing chiefly to the nourishment and sleep obtained, but no abatement of the symptoms. As the days went on these seemed to be increasing in intensity, and on the eighth day it was decided, as a last hope, to try injections of carbolic acid, no antitoxin being available in these remote regions.

The first injection (1 c.cm. of a 4 per cent. solution) was given on the evening of June 30th, and from that time onwards repeated twice daily, more frequent injections being impossible at his own home. At first there was a distinct improvement in his condition, the spasms were less severe, and the intervals between them considerably prolonged, trismus being markedly relaxed, but on July 3rd there was a relapse. The boy, according to Chinese habit, had been lying quite uncovered on his bed, and must have contracted a chill. His temperature rose slightly, the voice became very hoarse, and coryza troublesome. He was irritable and refused both food and medicine. The paroxysms became again more frequent, and so severe and prolonged that asphyxia was threatened, and the pain caused beads of perspiration to appear on his brow. The parents, fearing the end

was near, had fastened a piece of red rag outside the door and scattered black beans upon the threshold, in accordance with Chinese superstition, to keep demons from entering to claim his soul. These proceedings are never resorted to until all hope is gone, the Chinese being seldom at fault in their prognosis on these occasions. He was given quinine and Dover's powder, and, as it was impossible to visit him more frequently, the amount of injection was increased to 2 c.cm., and the bromide and chloral discontinued. The next day his condition was greatly improved, and progress was from that day forward maintained uninterruptedly.

On July 9th, owing to severe illness amongst ourselves, it became impossible to continue the home visits, and the parents at last consented to his admission into the hospital. Upon admission, although he seemed in much pain, his condition was satisfactory, and he had borne the journey well. A more systematic course of the hypodermic injections was instituted at once, my colleague, Dr. Francis Cunningham, undertaking their administration. On the first two days after admission five injections were given, the dose being 1 c.cm. of a 5 per cent. solution, and after that four injections each day. No bromide or chloral was given. Every night for the first seven days after admission ½ grain of morphine c. atropine was added to the last injection of carbolic acid to ensure a sound sleep, for no injections could be given at night, owing to our insufficiency of staff. The morphine was then reduced gradually until the patient was able to sleep without it. The improvement was satisfactorily maintained, and on July 31st the patient got off his bed himself and walked a few steps alone. His condition seeming so favourable, and being a difficult subject for the injections, they were discontinued, the boy having received 103 injections in all. No toxic signs were observed at any time, but small, punched-out sores appeared at two or three of the hypodermic punctures. After discontinuing the injections he was given a daily dose of grey powder. The rigidity of his legs diminished by degrees, but persisted longer in the right leg than in the left, contraction of the tendo Achillis causing him for a time to walk on tiptoe; but this eventually relaxed also, and for the last two months he has been in full enjoyment of his normal health and strength.

This case from the very first presented several favourable features. The late onset of the disease (about the fifteenth day), the seat of the injury on one of the fingers, and the trifling nature of the traumatism itself, all pointed to a hopeful prognosis. The patient, moreover, was at a vigorous age, his appetite was good throughout, his pulse slow and steady, and temperature normal, except for a temporary rise on one occasion. Then, too, the Chinese temperament was probably a favourable factor, for being so much accustomed to all sorts of sounds and disturbances, the paroxysms were not so easily, if at all, excited by external stimuli as would be the case with a European subject.

As it was impossible to procure the antitoxin it was considered useless to give injections of magnesium sulphate, and owing to the extremely filthy condition of the patient's bed and home surroundings, spinal injections were abstained from altogether. The progress at first seemed so favourable that it was reasonably hoped that recovery would occur naturally, and it was only after the lapse of seven days, when the symptoms began to increase in severity and the paroxysms in intensity, and his life was despaired of, that recourse was had to the treatment by hypodermic injections of carbolic acid. There is no doubt that the effect of the injections was decidedly beneficial, as shown by the marked diminution in frequency and intensity of the paroxysms which followed immediately upon commencing the treatment, but it was not until it became possible to give the injections sufficiently often that a marked and permanent change for the better took place. One week after his admission the spasms had completely disappeared and his jaws could be separated widely and naturally, and mastication of food became possible. There remained only the rigidity of neck and limbs, and this diminished sensibly from day to day during a period of rapid convalescence. The Chinese, to whom the disease is a common, and, alas! too fatal one, regard his recovery as a miraculous manifestation of the agency of the devil! It is my intention, when again called upon to treat a case of tetanus, to begin the carbolic injections from the very first, though I do not think it can ever be necessary to administer enormous quantities or repeat the injection very frequently when a smaller dose can be found to suffice.

UNDER the auspices of the Ligue de Prophylaxie Sanitaire, the first hospital for skin and venereal diseases has recently been established at Cairo. The funds were provided by the State. The director of the hospital is Dr. N. Z. Joannides, a pupil of Professor Neisser.

CONGENITAL BLENORRHOEA OF THE LACRYMAL SAC.

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THE subject of blenorrhoea of the lacrymal sac in the newly born has not received the attention it deserves. It is due to catarrh of the mucous membrane of the sac, which, owing to obstruction somewhere in the nasal duct, most probably where it opens into the inferior meatus of the nose, results in accumulation of muco-pus or pus in the lacrymal passages above the stricture; this leads to distension of the sac, which discharges its contents through the lacrymal puncta into the conjunctival sac when pressure is made over the region of the lacrymal sac. In the textbooks little is said about the pathology, and not much more about the treatment. Two decidedly different lines of treatment are, however, usually followed by ophthalmic surgeons: the one based largely on the results of the treatment and experience in individual cases, the other based in a great measure on the results of embryological findings. The first is the expression treatment, which may be briefly described as consisting of frequent emptyings of the sac by pressing that structure against the lacrymal bone, coupled with the employment of zinc chloride or other astringent drops to the conjunctiva afterwards; the second method consists in slitting up the canaliculus and passage of a probe down the nasal duct into the inferior meatus of the nose.

During the last eighteen months I have met two cases of blenorrhoea of the lacrymal sac in babies so placed socially that it was possible to have the expression treatment well carried out and to keep the cases under careful and even exact observation. The results have tended to strengthen the view I had previously held, that, given the circumstances, which are generally to be found in a good home, the expression treatment is, ordinarily speaking, quite sufficient to cure absolutely the great majority of cases.

As regards the literature on the subject, a careful search unearthed only two papers, to which I would recommend anyone who is interested in the subject: the first is by Mr. Donald Gunn, published in the *Ophthalmic Review*, February, 1900; the second and more recent by Mr. Stephen Mayou in the *Reports of Moorfields Hospital*, 1908. Mr. Gunn, whose article is entitled "Lacrymal Obstruction in the Young," publishes an account of seven cases of this condition, in which, if I read him aright, he ascribes the condition to obstruction of the lower end of the nasal duct, where it opens into the inferior meatus of the nose, and the consequent distension of the passages by the accumulation of epithelial waste, which should have been removed in due course if no such obstruction had existed; the dilatation of the passage he surmised from the large amount of pus and proved actually by the use of the probe. Mr. Mayou does not quite agree with this view, as he considers that the discharge accumulates in the sac itself, which is capable of much distension into the orbit without producing much outward and visible sign. In six of the cases seen by Mr. Gunn he slit the canaliculus and passed a probe; he found dilatation of the nasal duct with obstruction at the lower end in all the cases, and they were promptly cured by this slight operation; the expression treatment was not systematically tried.

Mr. Mayou's conclusions, the result of examination of the heads of several fetuses, are as follows:

(*a*) That throughout development the lower end of the lacrymal duct is extremely small, and remains so at birth, being partially occluded by the inferior turbinate bone.
(*b*) That the duct is filled with débris, both the sac and canaliculi.
(*c*) That at birth the duct is either not patent or only partially so.

Mr. Mayou is apparently a believer in the passage of the probe.

I would submit to those who deal largely with the newly born, and have occasion to see conjunctivitis in its many phases, that they should constantly keep in mind the possibility of lacrymal obstruction as a probable cause, more especially if the attacks of conjunctivitis are

recurrent, as they frequently are, the condition clearing up under treatment, and recurring in a week or ten days. Pressure over the lacrymal sac, which is the simplest of procedures, will clear up the diagnosis almost to a certainty; should pus or muco-pus regurgitate through the puncta, the expression treatment should be at once instituted. This is easily carried out by a careful nurse or mother; the sac is evacuated five or six times a day, and a few drops of zinc chloride lotion applied to the eye by means of a dropper. In one case I found, in addition to the above, a few drops of 1 per cent. protargol twice a day help very markedly when the secretion was inclined to be purulent; this can be discarded as soon as the secretion becomes more mucoid. The parents can be assured that the case will gradually clear up, and they will not be slow to appreciate the fact that their offspring will get well without the use of chloroform and the knife.

It might not be inappropriate to say, before giving my cases in brief, that there is in the minds of some medical men, who are in general practice and therefore have not always opportunities of extensive study of eye disease, a little confusion as to pathological conditions which the terms "dacryocystitis" and "blenorrhoea of the lacrymal sac" represent. Briefly, blenorrhoea of the lacrymal sac is a catarrhal condition of the mucous membrane of the sac; this may vary from mucoid to purulent. If, however, through the action of pyogenic micro-organisms or their toxins, the epithelium lining the sac becomes destroyed at any point, invasion of the surrounding tissues results in the formation of a phlegmon or abscess, and this is dacryocystitis. Dacryocystitis may result from bone disease in the neighbourhood apart from blenorrhoea of the sac; blenorrhoea, however, is the common cause of dacryocystitis.

CASE I.—Margaret ——, aged about 3 weeks, the daughter of a medical man, had had several attacks of muco-purulent catarrh, with the usual watery eye, even in the interval of freedom from conjunctivitis; repeated expression failed to elicit any discharge from the puncta; still, however, the expression was intermittentiy practised—that is to say, when the attacks of conjunctivitis occurred. Zinc chloride and boric lotions were used for several months, and silver nitrate gr. ij ad ℥j painted on the everted conjunctiva when thought necessary. When the child was about 5 months old all symptoms disappeared; she is now 18 months old, and presents no symptoms of former trouble.

CASE II.—George ——, the son of another medical colleague, was about 10 days old, and was a typical case, much muco-purulent discharge being readily expressed from the puncta; frequent expression was instituted, the mother taking upon herself the duty, and so well was the procedure carried out that the baby never developed any conjunctivitis; zinc chloride drops were used after the expression and protargol 1 per cent. only when there was any sign of purulent matter in the discharge. This child was quite well at the age of 16 months, the obstruction disappearing along with the cessation of matter on expression of the sac.

The first case was a mild one, but was nevertheless a true case. Singularly enough the baby's brother had the same condition at birth; this child had no pus from the puncta, but had obvious signs (wateriness) of obstruction to the flow of tears; happening to be taken for a holiday to the south, he suddenly developed a marked and typical blenorrhoea, so much so that the surgeon to whom he was taken recommended and performed the slitting-up of the canaliculus and passing the probe.

A HOSPITAL, including a dispensary and laboratory, has recently been opened in New York under the auspices of the Neurological Institute. Among the trustees of the institute are a number of prominent citizens, and on its medical staff are Dr. Joseph Collins, Dr. Joseph Fraenkel, Dr. Pearce Bailey, and Dr. Smith Ely Jelliffe. The building, according to the *Medical Record*, is fully equipped with appliances for the use of hydrotherapeutic, electrical, and other special forms of treatment. In the prospectus is the following passage, to which we invite special attention: "Physicians are invited to send patients suffering from nervous, mental, and allied diseases to the dispensary for diagnosis and for treatment, or for admission to the wards. Patients bringing letters from their physicians requesting diagnosis or suggestions in regard to treatment will be referred to their physicians." Within the scope of the work of the hospital are included formal courses of instruction in neurology.

A CASE OF PERFORATING WOUND OF THE EYE: OPERATION: RECOVERY.

By CHARLES KILLICK, M.D., F.R.C.S.,
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THE history of the case about to be described is a remarkable instance of the recovery, with good vision, of a severely injured eyeball. I am often called upon to deal with gravely wounded eyes, and my experience has been that they are nearly always lost. Within a few hours of the accident inflammation sets in, sometimes purulent, but more often not; the vitreous soon becomes crowded with opacities; sight is destroyed; there is frequently great pain, and the usual termination is enucleation. Wounds involving the ciliary region or accompanied by great loss of vitreous are especially dangerous. The history of the case under notice is as follows:

On August 20th last, at about 6 p.m., I received a telegram from Dr. Temperley Gray of Lenham, requesting my assistance at the scene of a motor accident at Harrietsham. I arrived there about 7.30. The patient, a lady, was suffering from a perforating wound of the right eye, caused by a splinter of glass from the broken window of her landaulette, which had collided with another motor. She had been taken after the accident into a cottage. The wound in the eye began below and somewhat to the outer side of the cornea, proceeding tangentially to it across the eyeball in a slightly upward direction as far as the inner corneal margin; at this point it turned downwards and inwards, at an angle of about 145 degrees, across the ciliary region, to terminate in the neighbourhood of the lacrymal caruncle. The total length was about half an inch. The iris had prolapsed throughout the whole of the subcorneal incision, but from the point where the wound changed its direction perforation of the globe was incomplete, only the sclerotic and choroid coats having been divided, so that no prolapse of the ciliary body or loss of vitreous had occurred; moreover, the lens appeared to be intact.

In addition to the ocular injury there was also an incised wound in the right lower lid, about ½ in. long, running parallel to the margin; the upper lid was obliquely divided just external to the upper punctum lacrimale; there was a linear abrasion on the bridge of the nose, and a small jagged laceration of the left temple. Careful search revealed no fragment of glass, either in the various wounds or in the conjunctival sac.

From the nature of the injury, it appeared that any attempt to save the eye would probably end in failure, but I tried to do the best I could under the circumstances. The first and most important step was to excise the prolapsed iris. This had to be done under conditions which did not favour an operation of such a delicate nature, but was fortunately successfully performed. The eye was then temporarily bandaged, and the patient transported to hospital, where she arrived at 10 p.m., being taken at once into the operating theatre. Sutures were placed in the wounds in lids and temple, and a conjunctival flap was dissected up and placed over that extending over the ciliary region. Both eyes were then bandaged, atropine having first been dropped into the injured eye.

The first night was passed without pain, and the patient slept well. On the fourth day after operation, as pain was complained of, the eye was inspected and found to be going on perfectly well; probably one of the conjunctival stitches had cut out and was irritating the eye. This was the only incident calling for notice, recovery being absolutely uneventful and unaccompanied by inflammation. The patient was allowed up thirteen days after the accident (September 2nd); a week later dark glasses were substituted for the dressings, and she was discharged on September 13th, after twenty-three days in hospital, with a perfectly healed eye, possessing practically normal vision.

Several factors contributed towards the successful result. In the first place, the injury, although extremely severe, had most fortunately left lens, ciliary body, and vitreous intact. Again, the fact that the patient was brought under treatment and an operation performed within two hours of the accident was of the utmost importance. I think, too, that the placing of a conjunctival flap over the inner end of the wound materially aided the healing process and ought never to be omitted in such cases.

Two more points should be mentioned. First, the behaviour of the patient, which was admirable both during the operations and throughout the whole period of after-treatment; had she been at all restless inflammation would probably have ensued, resulting in the loss of the eye. And secondly, the great pains and care taken by the nurse undoubtedly assisted towards the happy termination.

CHRONIC DISEASE OF THE COLLICULUS SEMINALIS.

By ARNOLD EDWARDS, M.D,

HONORARY ASSISTANT SURGEON TO THE MANCHESTER LOCK HOSPITAL.

AFFECTIONS of this the most important area of the posterior urethra are frequently the origin of profound genito-urinary neuroses. That such disease should give rise to hysterical and neurotic manifestations and disturbances of the urinary and sexual functions is not to be wondered at when one considers the relationship of the colliculus seminalis—otherwise known as the veru montanum, the caput gallinaginis, and the crista urethrae—to the ejaculatory ducts, the prostatic openings, and especially to the utriculus masculinus, which is the analogue of the female uterus. The colliculus seminalis, moreover, plays an important part in the mechanism of ejaculation. With erection of the corpora cavernosa the caput gallinaginis swells also; the mouths of the ejaculatory ducts are thereby directed forwards towards the membranous portion, and at the same time the bladder is closed behind. By this process the urethra, which ordinarily serves as a canal for the discharge of urine, is devoted to the use of the sexual system. That the bladder is shut off by the swollen veru montanum appears clear from the fact that it is difficult to void urine when the penis is fully erect, attempts at micturition causing a partial subsidence of the erection; again, urination cannot immediately succeed ejaculation. Also the pain felt in the perineum during ejaculation in cases of tight stricture shows that the passage backwards towards the bladder is closed to the semen. Another point in connexion with the neuroses of the veru montanum which to my mind is also of importance is the knowledge that the nerve supply of this part is in health greater than that of the rest of the urethra. This is proved clinically by the fact that the veru montanum is normally the most sensitive spot recognized by the patient during the passage of an acorn headed bougie down the canal.

A lesion of the colliculus seminalis may persist as the sole sequel of a gonorrhoea, but may also be brought about by sexual excess, frequent masturbation, and particularly by artifices to prolong the sexual act or to prevent pregnancy, such as digital compression of the urethra, constriction at the peno-scrotal juncture by a rubber band, or a species of mental coercion by means of which the orgasm is arrested just before ejaculation. Much more frequently, however, one finds abnormalities of the veru montanum associated with gonorrhoeal inflammation of other parts of the posterior urethra, or of the prostate and its ducts, or the vesiculae seminales and the ejaculatory ducts, or of the epididymes. Yet, in cases where one or more of these were involved, I have sometimes observed that after all prostatitis, vesiculitis, or epididymitis had yielded to treatment, the caput gallinaginis still presented an abnormal appearance, such as a soft infiltration, and gave rise to symptoms. Even when there is a co-existing inflammation of that acknowledged sensitive and nervous organ the prostate, I nevertheless think that the veru montanum is responsible for the greater part of the neuroses produced by the two combined lesions.

The features of a diseased colliculus seminalis can be readily investigated with the aid of various endoscopes. My usual instrument consists of an appropriately curved urethroscopic tube of the size of No. 25 French, with a capacious window on the under aspect of the curve which, when the obturator is removed, allows even an enlarged colliculus to completely enter the fenestrum without dragging on the sides of the delicate structure. With the passage of the ordinary straight urethroscopic tube, bleeding, slight as a rule, but occasionally severe, invariably results and requires persistent and careful swabbing away in order that the view be unobscured. Further, with the straight tube, instead of the complete veru montanum being exposed, only a portion of it is seen, huddled up as it were, at the extremity of the tube. The previously mentioned curved tube, made for me some years ago by M. Gentile, of Paris, and arranged to work with the Valentine lamp, answers very well for preliminary examination and appreciation of the coloration of the part, and, moreover, it is excellent for purposes of treatment. For the study, however, of the more minute details, I find Goldschmidt's irrigation urethroscope invaluable. Just as in the anterior urethra the inflation of the canal with air by stretching the lax and folded mucosa allows much finer investigations than the ordinary Valentine instrument can afford, so in the posterior urethra, where, of course, the aid of air is practically impossible, Goldschmidt in his apparatus—which is really a urethroscope on the principle of the cystoscope—has recourse to a flowing stream of water to open out and distend that part of the canal. The stream of water at the same time serves to wash away any bleeding and keep the lamp cool. Until the water is turned on and allowed to flow by gentle hydrostatic pressure, the picture presented is altogether indistinct, but as the fluid enters the most minute points are beautifully displayed. The marked anaemia of the parts produced by the water pressure and the fact that the appliance is only of diagnostic value are the disadvantages of Goldschmidt's urethroscope, but the alternate use of the two instruments I have described affords every scope for full investigation and treatment of the colliculus seminalis.

Viewed urethroscopically, the dimensions, aspect, and even the situation of the normal caput gallinaginis are far from constant, and considerable experience is required in deciding between the healthy and diseased appearances. The part is, on an average, about the size of a split pea, but its dimensions are generally in proportion to the size of the urethra and the development of the penis. In shape it usually takes the form of a semiglobular protuberance, and has a yellowish-rose colour. Using Goldschmidt's instrument, one can clearly see towards the anterior extremity and on the sides of the veru montanum the orifices of the prostatic ducts. These are small punctiform depressions, often smaller than the lacunae of Morgagni, and are easily overlooked with the other urethroscopes. The openings of the ejaculatory ducts are much larger, but even these I find difficult to make out with my curved tube and the Valentine source of light. The aperture leading into the utriculus masculinus, however, can be seen as a fine slit on the anterior declivity of the veru montanum when the part is examined with either instrument.

Pathologically, one finds that chronic disease of the colliculus seminalis is, like chronic urethritis generally, characterized by the formation and evolution of a small-celled infiltration which tends to become transformed into fibrous tissue. According to their stage, these infiltrations are classified into soft and hard varieties. When the veru montanum is the seat of soft infiltration, it swells, becomes dull red and cyanotic; its surface loses its smooth aspect, being, as it were, wrinkled by the formation of folds. Often it has a vivid red and pitted appearance, and resembles somewhat an over-ripe raspberry. Sometimes with Goldschmidt's instrument attenuated polypoid excrescences can be seen springing from the veru montanum and waving about in the stream of water. The orifice of the utriculus is gaping and inflamed, and the openings of the prostatic and ejaculatory ducts appear red, swollen, and surrounded by a prominent border and occasionally muco-pus can be seen to exude from these openings. When the small-celled infiltration of the colliculus has undergone a fibrous transformation its mucous surface seems "dried out," as if it had lost its polish and brilliancy, and has a greyish-rose or greyish-yellow colour. Viewed with Goldschmidt's urethroscope, the epithelium often appears to be desquamating. Later the veru montanum is found flattened, pale and withered, or bent and twisted almost out of recognition. The openings of the glandular ducts are small and contracted, or even closed and surrounded by a red areola which contrasts markedly with the general pallor of the neighbouring tissue.

The infiltrative changes in the veru montanum I have described must nearly always be ascribed to gonorrhoea, but personally I am quite convinced that chronic inflammatory processes can also follow gross venereal excesses, excessive masturbation, and a frequent practice of such sexual artifices as I have previously referred to. The long-standing hyperaemia thereby induced becomes localized in the colliculus seminalis, and a catarrhal condition with small-celled infiltration gradually establishes itself in this region, and involves in its progress the prostatic and ejaculatory ducts.

The symptoms evoked by the above pathological changes vary according to the stage of the disease and the individuality of the patient. Provided the inflammatory process is strictly limited to the mucosa, the symptoms are often trivial, or even absent; but if it extends more deeply into the substance of the colliculus seminalis, marked nervous disturbances are practically certain to ensue in a predisposed subject. Although one occasionally meets with cases presenting neurasthenic features where other parts of the genito-urinary apparatus are diseased, these cases are relatively few, and never assume as severe a type as when the lesion is located in the veru montanum. Deep chronic disease of the colliculus seminalis is characterized by those symptoms which we call "sexual neurasthenia"—that is, the spermatorrhoea of micturition and defaecation; prostatorrhoea, if the prostatic ducts are involved; pain on ejaculation, if the ejaculatory ducts are implicated; precipitate ejaculations, poor erections and frequent nocturnal emissions, complete impotency, relative or true sterility, together with a train of nervous phenomena and general physical and moral depression. Every practitioner knows of the intense mental agony and despair of these wretched sufferers, but, I fear, pays little or no attention to the pathology and treatment of the cause. The indifference, and even repugnance, of the profession towards these sexual neuroses is inexplicable, as no function of the body is more ultimately associated with the welfare and happiness of the human race than that of the sexual organs. By our neglect of a plain duty to humanity we drive patients into the toils of the charlatans; and, once the sufferer has been in the hands of a quack, he is, as a rule, rendered much more insusceptible to scientific treatment.

Internal remedies are of little or no value in the treatment of chronic disease of the veru montanum, and are at the best mere adjuncts to mechanical and local methods. The only two drugs from which I have obtained help have been potassium bromide in large doses and the fluid extract of salix nigra. If the colliculus seminalis be in a state of soft infiltration, with implication of the ejaculatory and prostatic ducts, every effort must be made to arrest its progress before the more sclerotic, and consequently more incurable, stages are reached. The most satisfactory way of aiding the absorption of the infiltrated area is by carefully painting the veru montanum with a fine camel-hair brush loaded with the medicament through the curved endoscope. With these applications one must proceed cautiously, and I usually commence with the ordinary tincture of iodine (*B.P.*) at intervals of a week. If insufficient progress follows this mild preparation, a 5 per cent. solution of copper sulphate is substituted; this again not proving effective, silver nitrate in 5, 10, or even 20 per cent. solutions may be employed, but the reaction must be carefully watched and allowed to subside before a further application is made. The solid salt I never, even under electric illumination, employ for "touching up" the veru montanum, for I am convinced that its indiscriminate and haphazard use, in the form of the *porte caustique*, has been responsible in the past for much sterility by causing occlusion of the ejaculatory ducts. In very obstinate cases the electric cautery may be employed, and if there are distinct polypoidal excrescences of the veru montanum these are best removed by a series of very circumspect touchings with a very fine cautery point. With any of the above applications, but especially the galvano-cautery, used recklessly, prostatitis, vesiculitis, or epididymitis may ensue; and I once saw, in the practice of a foreign colleague, a prostatic abscess follow too deliberate a burning of the veru montanum. If this area shows marked sclerosis the paintings will be useless, and the best results will be obtained by systematic stretchings with Kollmann's posterior urethral dilator followed by intravesical irrigations of silver nitrate solutions of the strength of 1 in 4,000. The constant current applied directly to the veru montanum by means of an appropriate urethral electrode has proved useful in my hands in some rather advanced stages; 2 to 5 milliampères administered for five minutes is sufficient for each sitting. Even when the veru montanum has regained its normal appearance, as demonstrated by the urethroscope, occasionally some of the neurotic symptoms persist; then Winternitz's cooling sound is often effective. Finally, in cases where the prostate and vesiculae seminales are also involved, systematic massage of these organs, with irrigation of the whole urethra, is indicated.

THE USE OF PURE ANIMAL WOOL IN MEDICAL AND SURGICAL WORK.

By NORMAN PORRITT, M.R.C.S.,
CONSULTING SURGEON, HUDDERSFIELD INFIRMARY.

My attention was drawn to the advantages of animal wool in June, 1906, when I was called to a child suffering from pneumonia. The father was a wool-stapler, and, on hearing that a Gamgee jacket had been ordered for his child, he brought to my notice a sample of very fine silk-like wool, and asked me to try it in place of the Gamgee tissue. I did so, and having used it on many occasions since, I feel that its advantages over the material in common use deserve wider recognition.

For cotton-wool is not wool but cotton, a purely vegetable fibre, the unadulterated product of the cotton tree; and whatever its advantages for swabs, sponges, and as a covering for deeper dressings, it is, where conservation of heat and retention of warmth is the object, inferior to animal wool. In cold weather instinctively we clothe ourselves in woollen garments, and even in summer or in hot climates find flannel more comfortable than cotton. For whilst cotton garments will not retain warmth in the cold seasons, they prevent the escape of the watery vapour from the skin in hot weather. The cricketer or athlete who sets about his work clad in cotton would soon be encased in wet, cold, clinging garments, uncomfortable whilst he exerted himself, and chilly when he rested after his exercise. To put on a Gamgee jacket is to imitate a cricketer or athlete who clothes himself in cotton. The application and removal of a Gamgee jacket are the work of the nurse, the ordering of it is all that comes within the province of the doctor. If the doctor could see a Gamgee jacket removed from the chest of a perspiring patient, who is perhaps taking diaphoretic medicine, he would find the inner surface of the jacket a wet, sopping mess. The cotton Gamgee prevents the transudation of vaporous perspiration, but animal wool allows the more ready escape of vaporous perspiration, whilst the comfort of the patient is infinitely greater.

In surgical cases, in patients about to undergo major operations, abdominal or otherwise, animal wool finds useful employment. Any means of diminishing the shock of operations, and especially of the prolonged abdominal operations which the achievements of modern surgery have rendered possible, claims recognition. And although after the operation hot-water bottles outside and hot saline solution inside the patient promote the return of vitality and warmth, their use savours of shutting the stable door when the steed has gone, or, to be more precise, of putting into a body heat which ought not to have been allowed to escape from it. It is much more difficult to get warmth into a cold or chilled living body than to maintain the heat already there by warm wraps and non-conducting materials. We must remember also that in prolonged operations the long anaesthesia lowers bodily temperature, and this should spur us to omit no precaution, however trivial, which will conserve the bodily heat of the mutilated patient. Operating tables with hot-water beds, to minimize shock, have been devised, but I have no experience of them, and I make bold to say that the use of animal wool goes far to make them unnecessary. The usual practice is to envelop the patient in a Gamgee jacket or suit, but animal wool is a heat retainer with which cotton Gamgee cannot compare, and when the lowering effects of the anaesthetic and the operation cause cold, clammy perspiration to exude, Gamgee tissue retains it and then becomes something of a refrigerator.

In every abdominal or serious operation I envelop the patient in animal wool. I can only give impressions, but it has appeared to lessen appreciably the degree of shock or collapse one expects after severe operations. "I have noticed," writes Dr. Dauber, Gynaecologist to the Hospital for Women, Soho,[1] "that patients are often subjected to too cold an atmosphere before entering the operating

room; warmth, and a continuous high degree of it, is essential from the moment the patient leaves his or her bed until returned to it. . . . If warmth before operation is essential, it is doubly so afterwards," Dr. Dauber continues. "Patients are often sent through draughty corridors, placed in cold lifts, put in wards with open windows, when 'shocked,' cold, and clammy from the operating theatre. It is not always the ether that is the cause of the subsequent bronchitis, though the ether usually gets the blame."

In other cases of shock, as in burns and bad smashes, as well as where there is deficient vitality, as in premature babies and feeble old folks, the wool should prove useful. As a jacket in pulmonary affections; as a wrapping for the joints and a shield for the precordial region in acute rheumatism; as a heat retainer in Raynaud's disease and any form of threatened gangrene, and as a warm covering for serious cases or delicate patients in the journey to or from the hospital or the nursing home, it may be advantageously employed. It is best applied warm. The warmth is grateful to the patient, and any lingering damp is driven out of the wool.

The wool is softer and of finer texture than woolly cotton. It is prepared by a process which eliminates all foreign vegetable or other matter likely to irritate. It may be applied in a single layer about half the thickness of Gamgee tissue and bandaged on; or it may be used as tissue between layers of gauze. For operation cases I have found a suit of flannel lined with the wool more satisfactory and comfortable than either the wool alone or the tissue form.

The suit is a great protection if worn for the first few critical days after the operation, and, if kept clean, it is, when sterilized, ready for another case. If dried before the fire on being removed from the sterilizer, it can be safely sterilized in the steam apparatus used for dressings. Some patients find it so comfortable that they ask to be allowed to wear it when the immediate need for it has passed away. The wool cannot be used as a dressing. It is more expensive than woolly cotton, but as it is not necessary to use so thick a layer the difference in cost is not so great as appears at first sight. In private work the slight extra cost is not worth a moment's thought; whilst in hospital, if made up into garments with flannel foundation secured by buttons or tapes, the material can be used several times at a less cost than the more perishable Gamgee tissue. I have only to add that Messrs. Down Bros. stock the wool, to which they have given the name of "thermo-laine" (heat wool).

REFERENCE.
[1] British Medical Journal, September 26th, 1907.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

SECONDARY PAROTITIS.

Two cases of secondary parotitis have lately occurred in my practice which are, I think, worthy of note, as articles on this subject have been published in the Journal of May 29th, p. 1296, and July 3rd, p. 18.

Case I.—A woman, aged 82, a victim of heart disease, with systolic mitral murmur and albuminuria, had also a scirrhous nodule in the right breast, which was enlarging slowly. Her general condition, however, rendered her not a suitable case for operative interference. The incisor teeth of the lower jaw were encrusted with tartar, and the gums infected with pyorrhoea. Her appetite for her age was good. She complained of pain in both the right parotid and submaxillary salivary glands, which were enlarged and tender. There was no evident dryness of the mouth. The swellings soon subsided after mouth washes of Condy's fluid.

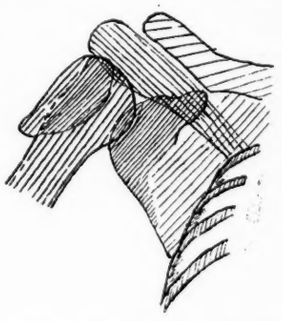
Case II.—An old woman, aged 89, was dying of her third attack of cerebral haemorrhage. During the illness of ten days I noted, five days before death, a swelling of the left parotid gland. This was evidently painful, as the patient, although semi-conscious from increasing cardiac and respiratory exhaustion, frequently would pass her hand over this region. She was taking nourishment fairly well; her mouth was dry, and tongue glazed and cracked. She had several foul stumps in the lower jaw. The nurse was directed to keep these as clean as possible with boric solution, and the swelling had completely subsided at the time of her death five days later.

Both these cases appear to me to be directly traceable to oral sepsis, the infection travelling along the salivary ducts. I think all these cases of secondary parotitis are due to the same cause, in spite of any routine of antiseptic mouth-washes that may have been employed. The fact that this condition frequently occurs in cases of gastric ulcer with haematemesis, or during treatment by oral starvation, I regard as coincidental only, for the condition will frequently be found in any disease which renders the mouth foul and dry and checks the regular flow of saliva.

Chichester. Arthur R. Rendle, M.D.Brux.

FRACTURE OF THE TUBEROSITY OF THE HUMERUS BY MUSCULAR VIOLENCE.

F. C., aged 41, a brewer's labourer, on June 4th was engaged in pushing 36-gallon beer barrels up a trolley on to a dray. He had sent up four or five barrels when he suddenly found he could not use his left shoulder, and had to give up. He felt no sudden pain or snap. I saw him about half an hour later. He is a very stout man, and was not easy to examine. I felt a curious, very coarse crepitus, like bone crepitus, as I manipulated his shoulder, but on rotating from the elbow I could distinctly feel the head of the humerus rotate in its socket; the clavicle and scapula seemed to be uninjured. Three days later, when he came again, the arm having been slung meanwhile, there was a great deal of blood effusion about the shoulder and chest, extending to the middle line in front.



I sent him to Mr. Hugh Lett at the London Hospital, who had a radiograph taken; from it the accompanying diagram was made, the radiograph itself, although showing the condition clearly, not being strong enough to allow of reproduction. It shows the greater tuberosity of the humerus torn off by the supra-spinatus and infra-spinatus muscles. I have not seen a similar case myself, and should be interested to know if others have come across any. In the days before radiography I do not suppose such a condition could have been accurately diagnosed.

London, E.C. A. P. Gibbons.

GASTRITIS AND ENTERITIS TREATED WITH CALCIUM PERMANGANATE.

The connexion between these two diseases is very close, and very often both are present at the same time.

If the trouble is high up in the alimentary canal, we find nausea and vomiting are the chief symptoms, while if the lesion is lower down, diarrhoea is the characteristic feature.

The etiology of both is practically identical, and in most cases the treatment follows the same lines. The origin of both in most cases seems to be due to the ingestion of irritating and indigestible particles of food, or of some organic or inorganic poison, and the first stage in treatment consists in stopping the supply of that part of the dietary that is the offending cause.

The drug that has been favoured mostly has been bismuth, but in many cases this seems to fail, especially if the enteritis be marked. In these cases I have obtained much better results from calcium permanganate in doses of ¼ grain with plenty of water. The following cases may be interesting:

1. A lady, aged 65, had been suffering for a few months from nausea and vomiting, together with great epigastric tenderness, which did not yield to bismuth prescriptions; after a few doses of calcium permanganate the trouble eased off considerably, and in ten days she was quite free from the stomach symptoms though, of course, very weak.

2. A lady, aged 38, had for two weeks suffered from dyspepsia and colitis, as well as some menorrhagia. I ordered her the permanganate, and within a week she was well on the way to recovery.

3. A commercial traveller, aged 44, who had been living somewhat well, complained of severe epigastric pain especially after meals, small and light though they had become; a few doses, to use his own words, "acted like magic," and freed him from his trouble.

4. A chemist, aged 38, complained of inability to eat, on account of a "lump" at the "pit of the stomach," and an occasional feeling of sickness, which symptoms he had tried to remove by bismuth and blue pill, but with no success. He reluctantly agreed to try a ¼-grain dose of the permanganate, when in spite of his incredulity the lump disappeared in two days.

5. A man, aged 42, had suffered off and on for two years from what undoubtedly was an enteritis, or colitis, causing numerous loose mucous stools which did not yield to bismuth. Six doses of the permanganate always stops the attack, and in some instances fewer doses have the desired effect.

The good results obtained in these subacute or chronic cases are not to be seen in acute cases, at least not to the same extent, and I have often noticed that the calcium salts do not act very well when the temperature is raised.

G. ARBOUR STEPHENS, M.B., B.S.,
Swansea. B.Sc.(Lond.).

Reports

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

COLONIAL HOSPITAL, GIBRALTAR.

PEDUNCULATED ANAL TUMOUR.

(Under the care of L. D. PARSONS, M.B., Ch.B.Edin., Assistant Surgeon.)

ON May 25th, 1909, a woman, aged 41 years, Spanish, married, presented herself at the out-patient department of this hospital, suffering from a pediculated tumour growing from within the anal margin, posteriorly and to the left side. She stated that she noticed a small lump there about two years ago, after childbirth; it appeared to her to be a pile. The tumour gradually grew until it attained its present dimensions, and was a great source of worry to her from its size, weight, and the dragging pain that it caused if unsupported. She wore an improvised sling, by which she suspended the mass between her thighs. The tumour presented a smooth surface superiorly, and had the appearance of exposed mucous membrane. The inferior surface was a trifle less smooth and irregularly corrugated. There were two patches of ulceration. The pedicle by which the tumour was attached measured 2 in.

On May 26th I removed the tumour as close to the attachment at the anal margin as possible, by passing a double silk ligature and tying the pedicle and then snipping the pedicle with a pair of scissors. The haemorrhage was practically *nil* and the pain very little. No anaesthetic was used; a morphine suppository of gr. ½ was inserted and a boracic dressing applied. The tumour weighed 8 oz., measured 11 in. in its widest circumference, and 9¼ in. through the pedicle. On section the tumour presented a pale, fibrous look. There were several large vessels entering through the pedicle. Microscopically the tumour consisted of fibrous tissue, with very few cellular elements.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

YORKSHIRE BRANCH.

Halifax, Wednesday, November 17th, 1909.

Dr. GODFREY, Scarborough, in the Chair.

Operations for Cancer of the Breast.—Mr. PRIESTLEY LEECH read a paper, admirably illustrated by a large number of lantern slides, on the results of 100 operations for carcinoma mammae. The paper will be published. The PRESIDENT offered his thanks to Mr. Leech for his admirable and illustrative paper. The question of the treatment of inoperable cancer was often a very difficult one. It was frequently desirable to operate for the relief of the distressing symptoms, even if permanent cure could not be anticipated. Dr. PYE-SMITH (Sheffield) congratulated Dr. Leech on his paper. The most important point in the question of cancer was undoubtedly early diagnosis. One often considered the results of operation for cancer to be more satisfactory than they were shown to be after the careful examination of statistics. Still, Dr. Leech's results were excellent. Dr. METCALFE (Bradford) was much interested in the remarks made by Dr. Leech on the treatment of inoperable cancers by *x* rays. He could bear out what was said as to the marked improvement in many inoperable cancer cases after *x*-ray treatment. But he wished to go further, and suggested that immediately after operation for malignant growths the parts should be *x*-rayed through suitable filters. *X* rays had undoubtedly a selective influence on pathological cells, and he believed where these were few in number and scattered, as after extensively carried out operations they would be, the danger of recurrence would be much diminished. Dr. EDDISON (Leeds) thought there was much less waiting before operation now than formerly. Operation could not be performed too soon. What were considered inoperable cancer cases were often hideous in appearance and in their consequences to the patients, and he considered it a good thing to remove them—even to have a clean wound, and to obtain some comfort for the patient. He thought it a pity to call any case inoperable. He believed the use of radium to be of very doubtful utility. Dr. HELLIER (Leeds) wished to ask Mr. Leech as to the appearances shown in the parts after cleaning up the axilla. Dr. LEECH, in reply, thanked the members for their kind remarks. He did not think *x* rays were of much use except in the treatment of ulcerating surfaces. Unless the skin was very much infiltrated he operated. He would be glad to show Dr. Hellier some of his cases.

Early Diagnosis of Tabes.—Dr. EURICH (Bradford) said that as there was very little time left he would not be able to read his paper, but would confine himself to making "some remarks on the early diagnosis of tabes." He related 4 cases observed by him in all of which the three cardinal symptoms of the disease were wanting—namely, absence of knee-jerks, Argyll Robertson's phenomenon, and lightning pains. He laid stress upon the value of the segmental sensory changes on the trunk, especially anaesthesia and hyperaesthesia, and of the absence of the tendo Achillis reflex. The subsequent course of three of the cases corroborated the original diagnosis, but the fourth case was of too recent date. In conclusion, he pointed out the value of early diagnosis, not only as regards treatment, but also in the matters of insurance, of employment, and of compensation. Dr. TREVELYAN (Leeds) corroborated in large measure what Dr. Eurich had said. He emphasized the great importance of early diagnosis, and paid much attention to the reflexes on both sides. The tendo Achillis reflex was a very important one. Bladder troubles were frequently an early diagnostic sign.

Cases and Specimens.—The following cases and specimens were shown: Dr. ROBERTSON (Doncaster): A knee case. Dr. WRIGHT (Halifax): Myxoedema and spina bifida. Dr. HUNT (Halifax): Case of traumatic meningeal haemorrhage. Dr. LODGE (Halifax): Sarcoma of frontal bone; case of laryngostomy; carcinoma of larynx. Dr. LEECH (Halifax): Tuberculous myositis; broad ligament cyst; sarcoma of mesentery. Dr. WISHART (Halifax): Multiple sarcomata.

Reports of Societies.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

Thursday, November 11th, 1909.

Dr. E. H. DAVIS in the Chair.

Discussion on Empyema.

DR. JAMES DRUMMOND, in opening a discussion on empyema, said the condition was an accident or sequela, arising in the course of, or in consequence of, some other pre-existing morbid process. It was to this period, before the empyema had declared itself, while the case was still under the observation of the general practitioner, that he confined his observations. Once empyema was established, the case was no longer a medical one, and the sooner it was dealt with by the surgeon the better. Pneumonia had been the precursor in nearly all the cases of empyema the onset of which he had observed, and probably, more or less, pneumonia was an invariable precursor in nearly all empyemas of zymotic origin. Next in importance he placed septic conditions of the lungs and abdominal viscera. Before the days of immediate operation for appendicitis he had seen empyema develop in at least two cases, which had gone on to suppuration of the appendix. In quite a number of cases there was no history of a previous illness. The medical man was consulted because a child was not "thriving"; there might be no temperature, cough, dyspnoea, or other prominent symptom beyond emaciation, but, on examination of the chest, dullness over one or both bases might be found, leading one to suspect the presence of fluid, and on aspiration pus might be detected. In respect of diagnosis, the nearest approach to infallibility lay in the prompt and frequent use of the aspirating syringe and microscope, but in one case where the empyema was due to hydatid even this failed him. He had never seen the slightest bad effect from the use of the needle. If there was not time to sterilize the skin of the patient, the site of the puncture should be previously painted over with lin. iodi. He had found this efficient and satisfactory. If pus was found, the case should be handed over to the surgeon at once. Professor HUTCHENS, speaking of the bacteria found in the pus of empyemata, pointed out that in many cases the organisms were well-known inhabitants of the alimentary canal. In a recent case the organism found appeared to be identical with that described by Dr. Carmalt-Jones in connexion with bronchial asthma.[1] Dr. DAVID DRUMMOND said that for the last twenty-two years he had regarded the association of pneumonia and empyema as more than accidental. If the temperature rose after the crisis of pneumonia, his rule was to aspirate on the tenth day, inserting the needle where the dullness was greatest and the vocal fremitus least. The signs of simple and purulent effusions were the same, but if the dullness diminished at the end of one week the case was not one of empyema. Mr. A. E. MORISON said that the greatest use of the aspirator (including the exploring syringe), was to discover (1) the presence and (2) the position of pus. Its use in localized empyema was essential as a guide to operation. As many of the localized empyemata occur in the lung fissures and between the lobes, the position of these fissures must be borne in mind. On both sides a line drawn from the spine of the second dorsal vertebra downwards and forwards to the junction of the sixth costal cartilage and rib marked the position of the sulcus separating the upper from the lower lobe. All above and in front of this line was upper, all below and behind it lower, lobe. On the right side the position of the second fissure was marked by a line extending from the middle of the first to the juncture of the fourth costal cartilage with the sternum. Many of the empyemata which emptied by coughing through a bronchus were localized between the lobes of the lung and difficult to find. A successful exploration could occasionally be made by imprisoning the pus. The patient was directed to empty his chest by coughing as far as possible before retiring to bed. A dose of morphine was then administered and further coughing forbidden. The aspirator was tried in the morning when the cavity was full. When such an empyema had been discovered, the proper treatment was to drain it through the most direct route. A second use of the aspirator was to tide over a temporary difficulty. A third was that suggested by Murphy of Chicago. After emptying the chest he injected through the needle a glycerine formalin solution. His published results were very remarkable. Mr. T. G. OUSTON did not approve of local anaesthesia for opening empyemata in children, owing to the certainty of the child struggling during the operation. Chloroform had given him every satisfaction, but it was not advisable to obtain full surgical anaesthesia: he was convinced that a minimum of anaesthetic was a very important factor. During its induction the patient should lie on the affected side, as a child's chest wall was so compressible that the purulent collection left it with only one lung available for respiration. Mr. CLAY said that in the old days the secondary danger of chloroform, acetone poisoning, was called septicaemia, and urged the use of ether as an anaesthetic. The position of the opening made should depend on the situation of the pus. He thought that an atypical pneumonia was often due to the *Bacillus coli communis*, which fact was not sufficiently recognized. His rule was to insert an exploring needle should the temperature rise without cause after the crisis of a case of pneumonia. Dr. R. S. PEART remarked that no mention had been made of the dull line in the chest, the level of which altered with the position of the patient. If pus was present there was not so much movement, owing to adhesions. Dr. PARKIN had seen two cases of empyema associated with malignancy. In one the resection of rib showed the deposits of sarcoma. In the other case there was great haemorrhage at the time of operation; the patient died suddenly a few days later, and a *post-mortem* examination revealed a malignant lung. In another case the empyema was secondary to a liver abscess. Dr. ANGUS MARTIN mentioned Mr. Rutherford Morison's method of previously making children intoxicated with alcohol to minimize the amount of chloroform used for anaesthesia. Dr. BEATTIE said general anaesthesia was a bar to successful needling, as the vocal fremitus could not be obtained. He did not think there was any change of level of fluid, as the pleural cavity was a closed bottle; but if the fluids present were of a different specific gravity the level would then alter with changes of posture. Mr. TURNER said that from a surgical point of view empyema was really a medical disease, for if the cases were only got sufficiently early the technical difficulties were not great, and the results were uniformly good. With very recent empyema, and especially in children, drainage through an intercostal space was usually sufficient; but if the condition was of any standing, and therefore likely to necessitate prolonged drainage, or if in any case the ribs were close together, it was far better to excise a portion, as difficulties quite often arose subsequently. He was glad to hear Mr. Morison emphasize the importance of getting the tube out early, and he could endorse very strongly what the same speaker had said about the necessity of passing a director into the sinus every day until it was perfectly evident that the cavity was obliterated from within. No case of empyema ought to be allowed to pass out of the control of the medical attendant until the cavity was completely obliterated either by expansion of the lung or by some other method. Beck of Chicago found that by injecting sinuses in various parts of the body with a paste made of 33 parts of bismuth and 67 parts of vaseline even very chronic sinuses could be readily got to heal, and by extending this process to the chest it was found that cases of very chronic empyema had been cured, some of the results being truly remarkable.

[1] BRITISH MEDICAL JOURNAL, October 9th, p. 1049

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

Friday, November 19th, 1909.

Dr. J. W. MARTIN, President, in the Chair.

Meeting at Sheffield.

DR. DONALD (Manchester) read notes of a case of Wertheim's operation, which was followed by uraemia. Only 4 oz. of urine were passed on the first two days, and none at all on the third; on the fourth and fifth 62 and 120 oz.

respectively were passed, and the patient appeared to be making good progress. On the sixth day coma set in, and death occurred a few days later. At the necropsy the right kidney was found to be the seat of old cystic disease, and to contain but little secreting tissue, whilst the left ureter had been constricted by a ligature. The left kidney was engorged, but appeared to have been healthy before the operation. Dr. H. BRIGGS (Liverpool) recorded a case in which he had removed a pyosalpinx on account of pelvic pain of a month's duration, from a patient two months advanced in a second pregnancy. Three weeks had since elapsed without evidence of disturbance of the pregnancy. Mr. P. E. BARBER (Sheffield) recorded a case in which he had performed total abdominal hysterectomy for *Placenta praevia centralis*. The patient, a 4-gravida, had been losing for a week before admission to hospital. Vaginal examination caused profuse haemorrhage, which necessitated plugging the cervix and vagina. She was blanched, and apparently moribund; the pulse-rate was 140. The uterus, containing a dead full-time child, was removed, two pints of saline being at the same time infused intravenously. The patient made a good recovery. The following specimens were shown:—Dr. LLOYD ROBERTS (Manchester): A uterus removed for *Malignant disease of the corpus*. It was found to contain a fibroid polypus, which was invaded at its base by glandular carcinoma arising from the neighbouring endometrium. The apex of the polypus was quite free from malignant disease. Dr. J. E. GEMMELL (Liverpool): A *Sarcoma of the mesentery*, which clinically had simulated an ovarian cyst with long pedicle. Dr. W. E. FOTHERGILL thought the microscopical appearances were those of a perithelioma. Mr. R. FAVELL (Sheffield): A round-cell *Sarcoma of the vagina*, occurring in a single woman of 25. The hard, nodular growth was easily enucleated and removed with its covering of vaginal wall. Mr. P. E. BARBER: (1) A full-time *Ectopic gestation sac*, which had been successfully removed from a multipara, aged 34. Soon after the commencement of the period of nine months' amenorrhoea, she had experienced a sudden attack of right-sided pelvic pain, with a feeling of faintness; this was not accompanied by external haemorrhage. The fetal movements, which had been very violent and painful, had ceased six weeks before admission. There was no history of spurious labour pains. The sutures of the softened fetal head could be easily felt through the thin abdominal wall, and the state of affairs was readily diagnosed. The sac, which was largely extraperitoneal, was removed entire, with the body of the uterus, to which it was intimately united. The left appendages were normal. The right could not be found, either at the operation, or on later examination of the specimen. The right round ligament ran into the sac. The placenta, greatly thickened by blood clot, was attached to the back of the uterus and the tissues of the base of the broad ligament. (2) A uterus with a right *Tuberculous pyosalpinx* and a left tuberculous tubo ovarian swelling. A nodule of caseating material enlarged the right angle of the uterus, around the interstitial portion of the tube. The parietal and visceral peritoneum was studded with tubercles. Sir WILLIAM SINCLAIR showed long *Sea tangle tents* suitable for the induction of labour. They were 6 or 7 in. long. Similar ones had already been used, with good results, in several cases.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

Wednesday, November 17th, 1909.

Mr. ADAM FULTON, President, in the Chair.

MR. FULTON, in a presidential address dealing with *Medical ethics*, pointed out that the present tendency to create numerous State and municipal medical appointments was becoming a source of danger to the medical profession. In many instances the remuneration was quite inadequate, and the work done unduly encroached on that of the general practitioner. To guard against these dangers the medical men should endeavour to become a thoroughly united body. At present there were too many petty jealousies between general practitioners themselves, between general practitioners and hospital staffs, and between general practitioners and the numerous types of consultants which had lately arisen; a clearer recognition of etiquette would in itself do much to lessen friction. It was also very much to be desired that medical men should meet more frequently on a social footing, and thus learn to appreciate one another's good points. Many existing differences would then disappear at once.

At a further meeting on December 1st, Dr. JACOB described a case of *Delayed chloroform poisoning* in a child aged 12 years. The patient suddenly became maniacal thirty-six hours after the administration of chloroform, the symptoms very closely simulating those of acute septic meningitis. A lumbar puncture revealed increased cerebro-spinal pressure, but no other abnormality. The liver, examined after death, showed areas of fatty necrosis. Mr. A. R. ANDERSEN, in a paper on the treatment of *Uterine cancer*, laid down the rule that a case might be regarded as "a cure" when no recurrence had taken place after five years. The majority of cases of uterine cancer could be cured if operated upon sufficiently early. The prospects of cure were better than in breast cancer. The operation of choice was abdominal hysterectomy. All cases in which the disease was confined to the cervix, the uterus movable, and the broad ligaments free, should be operated upon. But in his hospital practice only one in every eight cases was thus favourable. Cases in which the rectum and bladder were involved were clearly inoperable. By far the larger number of cases were at a dubious stage. In a series of twenty such cases upon which he operated in 1897 and the four succeeding years, he had a mortality of 30 per cent. which induced him to advise against operating in these doubtful cases. But Wertheim's encouraging figures in 1905 induced him to follow his lead, and since then the results had been very satisfactory. In view of the immense importance of early recognition of "uterine" cancer, vaginal examination should be practised more frequently by medical men.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Friday, November 26th, 1909.

Dr. J. B. HELLIER, President, in the Chair.

MR. L. A. ROWDEN, in a paper on *X-ray diagnosis of renal calculus*, insisted on the importance of making the diagnosis from a screen examination and not from the plate. If the plate alone was relied on many calculi might be overlooked. The area of illumination should be cut down to its smallest possible limits so as to lessen the general fogging produced by the secondary radiations. Out of a series of 400 examinations made by him, 92 cases were operated upon and in over 95 per cent. of these the diagnosis was found to be correct. Dr. A. H. BAMPTON, in a paper on the medical aspect of complete *Suppression of urine*, narrated a case where there was complete suppression for ten days. Up to the eighth day the brain remained unclouded and breathing and pulse not accelerated; temperature was subnormal and there was no gastro-intestinal disturbance. The patient died unconscious, but without convulsions, on the eleventh day. On autopsy the bladder was found empty and there was no mechanical obstruction in the urinary tract. The kidneys showed interstitial nephritis. Similar cases had been reported by Sir Dyce Duckworth and Dr. Osler. The following were among the exhibits: Mr. B. G. A. MOYNIHAN: An *Enlarged prostate*, weighing 24¾ oz., removed in June. The patient had suffered for nine months from symptoms of prostatic obstruction. A large tumour was palpable above the pubes. The prostate was removed by the suprapubic route. The wound was slow in healing, but was closed in seven weeks. Dr. A. SHARP: Two cases illustrating the tertiary manifestations of *Syphilis of the larynx*. One showed a diffuse infiltration involving the ventricular bands and interarytenoid regions, and causing troublesome dyspnoea and loss of voice. The other case showed a typical tertiary ulcer, the remains of a disintegrating gumma, involving the true and false cords of the left side. It was pointed out that potassium iodide was much more efficient in circumscribed than in diffuse infiltrations, and that in the latter mercurial inunction together with iodide gave the best results. Mr. H. COLLINSON: A circular tin disc, ½ in. in diameter, removed from the larynx of a child, aged 4. The child was

admitted late at night when skiagraphy was impossible, A high tracheotomy was performed, and the foreign body was found to be tightly impacted below the glottis. Mr. A. L. WHITEHEAD: A case of *Mastoid disease* with labyrinthine suppuration; vertigo and nystagmus were present before operation. The vertigo had now passed off, but some typical labyrinthine nystagmus persisted. Mr. W. THOMPSON: A *Sloughing testis* following influenza. Dr. E. F. TREVELYAN: A case of *Pachyderma laryngis* in early pulmonary phthisis.

HARVEIAN SOCIETY.

Monday, November 15th, 1909.

DR. C. BUTTAR, President, in the Chair.

The Nature of Angina Pectoris.

DR. ALEXANDER MORISON, in a paper on the nature and treatment of angina pectoris, remarked that if the term was used so as to apply to all forms of cardiac pain the condition was not rare, but if limited to classical cases, mostly without valvular disease, the remark of Stokes of Dublin that he had never seen a case was readily comprehensible. The speaker himself would define angina pectoris as a painful affection of the heart as a whole, dependent upon disorganization of some anatomical character or disorder in the physiological function of one or more of the factors in cardiac action, and associated in some cases with a fear of impending death. The character and situation of the conditions which originated angina varied. The heart, though endowed with low sensibility to handling and other modes of external irritation in normal circumstances, might in the presence of lesion of its internal surfaces or severe stimulation of its nervous endowment, by compression or otherwise, reveal evidences of sensibility as well marked as that of other viscera in analogous circumstances. He argued that even the commencement of referred pain in a peripheral area such as the arm, in no way invalidated belief in intra-aortic or intracardial nerves being also the seat and site of referred pain. The majority of cases of so-called vasomotor angina with valvular disease tended to subside without accident, but non-valvular cases might rapidly terminate fatally, and required, not merely the use of nitrites, but also of morphine, atropin and general anaesthesia for relief and to arrest death. In conclusion, he showed a patient upon whom thoracotomy had been performed with benefit for cardiac pain. Sir CLIFFORD ALLBUTT considered the cause of uncomplicated cases to be disease of the aorta above the valves; the distribution of the radiating pain depended largely on the part of the aorta affected. There was a pain arising from the heart itself, and situated in the precordial area, which was quite distinct in character from the pain of a typical angina attack. Sir RICHARD DOUGLAS POWELL held that typical angina was due to atheroma and thrombosis of the coronary arteries. He would not class as "angina" mere aortic pain following exertion. A rise of arterial blood pressure was an important factor in the causation of angina pectoris; he had seen cases in which development of mitral regurgitation brought about relief from anginal attacks. Sir LAUDER BRUNTON compared the pain of angina to the contraction of a distended bladder. It was due in some cases to increase of arterial blood pressure; in others spasm of the coronary arteries was an important factor. Patients with anginal symptoms should have their exercise carefully regulated and rest after meals. Dr. JAMES MACKENZIE said that in any case of apparent angina the distribution of the pain should be carefully investigated. In most cases there was great exhaustion of heart muscle. Dr. LEES said that many of the attacks of so-called angina pectoris were not really typical. A very important confirmatory physical sign was a dilated aorta. Excessive indulgence in tobacco smoking was a very important factor in the causation of angina pectoris. Dr. COLBECK thought that any satisfactory theory in explanation of the condition must be one which would account for the fear of impending death. Sir JOHN BROADBENT thought that most attacks were due to a spasm of the vessels induced by cold and exertion. Dr. BEZLY THORNE regarded heart distension as the true cause of angina pectoris. In any alleged case he looked for tender areas at the apex beat, over the third left costal cartilage, and over the lower part of the sternum, and he advocated the imposition of blisters at these spots. Dr. EWART considered that the influence of respiration on angina pectoris was not sufficiently taken into account. It was possible that spasm of the diaphragm might in certain cases account for some of the pain present.

Reviews.

DISEASES OF THE RECTUM.

WE must apologize to our readers for not having noticed before this the appearance of Sir CHARLES BALL'S book on *The Rectum, its Diseases and Developmental Defects*,[1] for it is, in fact, a new work. In his first publication, which appeared in 1887, the author offered some explanation for adding to the literature of the diseases of the lower bowel in stating that improvements in wound treatment had produced such important changes in surgery, that in all branches views had had to be modified. Since 1887 technique has been further developed to such an extent that it is no matter for surprise that Sir Charles Ball has chosen not to revise the previous work but to write a new book. In respect of the wealth of experience from which its author writes, and of the number and value of its illustrations, it stands apart among British publications on the rectum. The illustrations cover the anatomy of the lower bowel, the pathological anatomy, macroscopic and microscopic, of its diseases, and operative technique; in the last respect they are perhaps most successful, but it is difficult to draw any distinction, as the merits of all are high.

Normal anatomy occupies the first chapter, and the newer methods of formalin hardening prove their usefulness in the many striking figures which accompany the text.

The three following chapters treat of developmental defects; the view is expressed that if there is no evidence in a case of imperforate rectum that the bowel is near the perineum, colotomy is the right treatment, a later abdomino-pelvic operation being done to restore the natural channel if the infant survives.

On the question of the diagnosis of rectal disease the author maintains that it is by the sense of touch rather than by sight that disease of the interior of the rectum is best recognized, and places little reliance on special specula designed for the examination of the higher part of this portion of the bowel. Infective diseases, ulceration, fistula, stricture, fissure, and prolapse, each occupy a chapter. In the treatment of fistula Sir Charles Ball strongly recommends immediate closure of the wound by suture, a treatment which he has found almost invariably successful of recent years. In discussing the treatment of prolapse he speaks favourably of colopexy in suitable cases. Chapters on haemorrhoids and benign tumours precede that on cancer. In the latter the most interesting pages are those in which a new method of perineal excision of the rectum is described, with the particular design of preserving sphincteric control. Other methods, sacral, vaginal, and abdominal, are discussed. The author says, regarding the abdominal method:

> I am convinced that it is possible to bring the divided colon down to, and fix it to, the anus in a large proportion of cases without any wound whatever of the anal canal or pelvic diaphragm, and so obtain a perfect sphincteric control.

The final five chapters treat of foreign bodies, injuries, neuroses, pruritus ani, and diverticula. They contain recommendations on details of treatment which are of great practical value. This remark, indeed, applies to the whole. The fruits of a ripe experience such as the author's are a valuable possession; he has displayed them in this volume in a manner which compels gratitude and admiration, and we are not surprised to hear that a reprint of the volume has already been called for.

[1] Oxford Medical Publications. *The Rectum: Its Diseases and Developmental Defects.* By Sir Charles B. Ball. London: Henry Frowde, and Hodder and Stoughton. 1908. (Cr. 4to, pp. 346; 5 plates, 181 figures. 30s.)

NORMAL AND PATHOLOGICAL HISTOLOGY OF THE BLOOD.

THE first volume of the second edition of the work on anaemia, by EHRLICH, LAZARUS, and NAEGELI,[2] is concerned with the normal and pathological histology of the blood, and will be welcomed by all interested in haematology, for during the ten years or more since the appearance of the first edition, not only has much work been done in the various directions suggested by investigations carried out at the Frankfort Institute, of which Professor Ehrlich is the director, but modifications and corrections have had to be made in some of the deductions which this distinguished worker had drawn. The volume opens with an interesting preface by Ehrlich, in the course of which he says that the groundwork of the volume is in no way altered, and that, though many stones have been removed from the edifice which he had raised in the first edition, it has been enriched by new work. In spite of the cogent criticisms to which it has been subjected, his belief in the doctrine that all anaemic conditions must be referred ultimately to alteration of function of the bone marrow remains as yet unaltered. On the other hand, his theory of the dualistic origin of the white corpuscles appears to have more or less certainly triumphed over that which sought to show that all white corpuscles are derived from one class of cell. Ehrlich considers that the observation made by Kollmann on lower types of animals (crab), that the granules of white corpuscles disappear with starvation, affords a new insight into the significance of these bodies; and the hope is expressed that the efforts of physiological chemists will be directed towards solving the riddle of their composition. To Dr. Lazarus has fallen the task of editing the sections dealing with the clinical examination of the blood, the histology of the red corpuscles, of the blood platelets and of haemoconia; and to Dr. Naegeli the histology of the white corpuscles in health and in disease, their seat of origin, the significance of their granules, the morphology of the three main types of granulocytes, and, finally, the section dealing with the two forms of leucocythaemia as defined by Professor Ehrlich, the lymphatic and the myeloid. No one at all familiar with the problems of haematology would expect a detailed critical review of this volume; it is replete with facts derived largely from elaborate inquiries carried out by Professor Ehrlich and his pupils which cannot be summarized, but it should be said that in the discussoin of the results the points of view of workers who do not agree are fairly stated. We are glad to welcome the credit given to the methods of estimating the total blood in the body by the carbon-monoxide process advocated by Drs. Haldane and Lorrain Smith, which has led to a correction of the estimate of the relative weight of the blood in the body from 1 to 13 to 1 to 20.5; and to the work of Biernacki, which would appear to have proved that the total iron in the body in chlorosis and some other forms of anaemia may be not merely normal but greater than normal. Reference is also made to the recent important work of Friedenthal, tending to show that the histological reactions of the blood and serum hitherto referred to alkalinity are much more readily explained by ferment action; alkalinity when artificially increased to but a slight extent checks this action. The methods of "illumination of a dark field," sometimes called ultramicroscopic, are also commended for the observation of haemolysis and in the minute study of blood platelets as advised by Pappenheim. The beautifully executed coloured plates show, what the text also reveals, that the introduction of Giemsa's stain has greatly advanced our knowledge of the minute structure of the various forms of corpuscles, red and white. Much attention is paid to the punctiform granulations observable in red corpuscles. Dr. Lazarus reiterates the view, originally expressed by Ehrlich, that the presence of megalocytes is of great importance in the diagnosis of pernicious anaemia, a hypothesis which we have shown in a former review Dr. Hunter has attacked with so much force and effect. The basophilic character originally ascribed by Ehrlich to the granules visible in the protoplasm of lymphocytes is now shown to be due to an error: the appearance upon which the opinion was founded is now found to be merely due to the condensation of the protoplasmic reticulum which stains with basic dyes. Schridde's method of distinguishing lymphocytes from the large mononuclear cells and from immature myelocytes (called now by Dr. Naegeli "myeloblasts") is said to yield clear and trustworthy results. It consists in the detection of fuchsinophile granules in the protoplasm of lymphocytes; a further valuable means of distinguishing these cells is said to be the demonstration of what are spoken of as azarophile granules, though Pappenheim has shown that they are not specific for lymphocytes, since they do not always exist in these cells, and occur also in the thrombocytes of the frog and in certain cancer cells. In more than one place reference is made to the fact that Schridde's method of staining can be used not only for blood films, but for sections of tissues like the marrow, spleen, etc., and it has thus become possible to trace the actual seat of origin of the various white cells met with in the blood stream, so that workers need no longer fear the charge of being mere "peripheral haematologists." One further point which is brought out clearly in the papers of this volume is that the granules present in any one leucocyte are uniformly basophilic, neutrophilic, or acidophilic, apparent exceptions being due to the unequal staining of granules which are not equally ripe. Finally, we may call attention to the newer work which has shown that myelocytes can, even in the adult, arise from tissue other than the marrow, for there is reason to believe Schridde's contention that they can arise from cells of the vessel walls which are capable of undergoing a metaplasic—or, to use Schridde's own term, a heteroplasic—transformation not only into myelocytes, but into myeloblasts and erythroblasts. The acceptance of this conclusion practically amounts to a renunciation of the view elsewhere expressed in the volume that all granulocytes arise in the marrow; it is, however, contended that probably such an origin is the exception, and that even when it does take place it can have little bearing on the vexed problem of the origin of white cells in the adult human being. The acknowledgement of the possible origin of such cells from tissue other than the marrow is the one example we have detected of the contradiction which is an almost inevitable result of composite authorship. The volume will certainly for some years to come be the standard work of reference on haematological methods.

The Blood in Health and Disease has been written by Dr. R. J. M. BUCHANAN,[3] and in the hope that it may prove useful to medical students and practitioners who may be desirous of including haematology in their clinical studies and practice. The busy practitioner who wishes to understand rather than practise the methods of modern haematology will find this book of great interest, and its handy size will combine with the excellence of its illustrations to gain for it a good reception. Its defects, which are serious in many respects, are due to attempting to give too much in too short a space. In the first sections, devoted to technique, the reader is liable to be confused by the multiplicity of methods, which are described with little assistance in regard to the selection of technique. If many of these methods had been relegated to the obscurity which they deserve and the resulting space used for the elaboration of the best, the book would have been improved. Not nearly enough attention is paid to the various small faults in technique which so often lead to serious error. No man requires to know fourteen methods of determining the coagulation time. Why give ten prescriptions for diluting fluids to be used in the enumeration of platelets? The eighty-line description of Wright's opsonic technique can only serve to deceive the uninitiated by its apparent simplicity. Staining methods are mentioned in large numbers but with very little detail. Many of them are merely variants on the methylene blue and eosin stains. Two novel modern stains—namely, Pappenheim's and Schridde's—are not mentioned, although they have been much used in recent work on the morphology of the lymphocytes, a subject

[2] *Die Anaemie.* 1, Abth., 1 Teil, *Normale u d pathologische Histologie des Blutes.* Second edition. By Dr. P. Ehrlich, Dr. A. Lazarus, and Dr. O. Naegeli. Vienna and Liepzig: A. Hölder. 1909. (Sup. roy. 8vo, pp. 161; 5 illustrations in the text and 5 coloured plates. M.5.20.)

[3] The Oxford Medical Publications. *The Blood in Health and Disease.* By R. J. M. Buchanan, M.D., F.R.C.P. London: H. Frowde, and Hodder and Stoughton. 1909. (Demy 8vo, pp. 334; 31 figures and 2 coloured plates. 12s. 6d.)

to which the author devotes a good deal of space. The descriptions of the cytology of both normal and pathological blood are excellent, and, together with the very faithful reproductions of the author's own drawings, make the book well worth having. The various diseases of the blood are briefly described and adequately illustrated, the description of chloroma being particularly good, as it is illustrated by films of the marrow as well as of the blood. The description of Hodgkin's disease is inadequate, no mention being made of the recent advances in the study of the pathology of this disease. Sternberg's leukosarcomatosis is not mentioned, but has probably been intentionally omitted, as the question is far from being settled. We think that an account of the functions of the blood cells with regard to inflammation and repair would have added to the value of the book for the purposes of the student, and could have been included instead of some rather indigestible details in the last two chapters on the blood in a variety of diseases. We have devoted most of our space to criticism of the faults which we have mentioned because we think the book will command a ready sale and soon require a new edition, when it can be so much improved as to become a standard elementary manual.

OBSTETRICS.

PROFESSOR GACHE, of Buenos Aires, has published in French a collection of essays[4] on different subjects connected with pregnancy and parturition. The statistical, or, to speak more correctly, the numerical, method has a great attraction for him. He gives us essays on the fecundity of women in 66 countries; on rickets in America; on pregnancy and labour in girls under 16, and on labour in elderly primiparae. These essays are each of them collections of statements bearing on their respective subjects made by persons who have taken the trouble to put their experience into exact figures, and whose records are therefore of more value than those set down in indefinite phraseology. Dr. Gache has not made as much use of his material as he might, for he is evidently not acquainted with the greatest work on his favourite subject that has ever been written—namely, the *Fecundity, Fertility, and Sterility*, of Matthews Duncan. The other essays in this volume concern various matters of practice, and have this valuable feature, that they are expressions of individual opinion. Dr. Gache is a voice, and not an echo. We cannot always agree with him. At the present time, he says, there is "universal accord" against ergot of rye. We doubt the universality of the accord. We hold ergot to be a most valuable drug if used in proper cases and at the proper time. The misfortunes that Dr. Gache holds up as warnings against the drug are warnings, if rightly interpreted, not against the drug, but against the use of the drug in wrong cases. The disasters which have followed its use in cases in which it was contraindicated are so many proofs of its power and value in suitable conditions. Dr. Gache is a strong advocate of Bossi's dilator: he says it is an instrument of great value; that it is indispensable in cases of urgency; that it meets special indications that no other dilator is capable of satisfying; that its use is easy, its result certain—in fifteen minutes it determines complete dilatation. It is very well to possess this power; but we should have liked better information as to the cases in which it is an advantage to the patient to be delivered in fifteen minutes. The chief indication Dr. Gache specifies is eclampsia; and there is considerable difference about the practice of hurrying delivery in eclampsia. In the article on puerperal eclampsia in Sir Clifford Allbutt's *System of Medicine* a considerable mass of evidence is adduced to show that the progress of eclampsia is not influenced by emptying the uterus. We are, it may be, timid, but we cannot divest our minds of some fear that emptying the uterus in a quarter of an hour may not be quite so safe as the more gradual process by which Nature effects this object. The treatment of rupture of the uterus which Dr. Gache approves is complete hysterectomy. He attributes the initiative in this application of surgery to Dr. Krajewski, a Polish surgeon, who practised it in 1890. It was discussed in the Obstetrical and Gynaecological Section of the Royal Society of Medicine at a meeting in the session just over, the basis of discussion being a paper by Dr. Eden, who advocated this treatment. We have said enough to show that the book is worth perusal by every teacher of obstetrics. The weakest part is the last essay, on coition during pregnancy. We regard this as valueless. It is a collection of opinions from various writers, not one of whom has made any attempt at scientific study of the subject. In the present state of feeling on such matters, its study by scientific methods is impossible. This being so, a sensible doctor will refrain from giving any advice on the point, unless the patient clearly expresses a wish to be reinforced in a particular direction by medical authority. Being without value, this section would better have been omitted.

The fourth edition of an elementary book does not call for very detailed notice. In noticing the former editions of Dr. JARDINE'S *Midwifery for Nurses*[5] we have remarked that the author tells the nurses who may study his book more, rather than less, of what they ought to know. It is of vital importance that the nurse should know how to prevent septic infection. It is not equally important that she should be clear as to the nature of sapraemia. If it were, we think many obstetric teachers would demur to the statement that sapraemia causes pelvic cellulitis and abscess, inflammation of the tubes, and peritonitis. Most of them, we think, would say that in such cases there is much more than sapraemia.

From one point of view we can give Dr. LIEPMANN'S volume of lectures on practical obstetrics unqualified praise.[6] The illustrations are excellent. There are 212 broad, bold outline sketches, each one of which tells its tale simply and clearly. We know of no book on the subject better illustrated. But for the implication of omniscience involved in the phrase, we should have said "no book on any medical subject." The plan of the book is unusual. It consists of a series of lectures. Each lecture comprises, first a brief summary of the bald facts of the case, and the reason of its selection for comment; then a condensed statement of some features in the case put in the form of replies to questions put to or by pupils, we do not quite understand which—and to our mind the work would not be spoiled by the omission of these sections; then a lecture of the usual kind, in which the subject illustrated by the case is discussed. Dr. Liepmann is a grateful pupil of Professor Bumm, to whose encouragement he attributes the publication of his book. It is entirely didactic. No authorities are quoted in support of the advice given. This we regret. In Lecture XII, which is on eclampsia, we are told that six years of experimental research have brought the author to the conviction that the placenta is the source of the poison which causes eclampsia, and that the removal of this source of poison as quickly as possible—that is, as rapid delivery as possible—is the best treatment. We should like to have been able to refer to the record of these experiments, but the author tells us not where we may find them; and he does not seem quite clear in applying his principle, for one of his excellent diagrams represents a case of contraction of the pelvis of such degree that there are people in this conservative country who would advise Caesarean section even if the mother were quite healthy. But our author mentions, as alternatives, we presume, to be discussed, the classical Caesarean section, extraperitoneal Caesarean section, hebosteotomy, dilatation with a bag, followed by perforation and "prophylactic" turning, followed by perforation of the aftercoming head. In such a case as this we do not quite understand what "prophylactic" means. But if we accept our author's opinion that the best treatment of eclampsia is to deliver as quickly as possible, can there be a doubt that this indication is fulfilled by Caesarean section better than by any other mode of treatment, and that slow dilatation by a bag or by the half breech are, on this hypothesis,

[4] *Travaux d'obstétrique.* Par le Docteur Samuel Gache, Professeur agrégé a la Faculté de Médecine de Buenos-Aires, etc. Paris: G. Steinheil. 1909. (Demy 4to, pp. 418. Fr.15.)

[5] *Practical Textbook of Midwifery for Nurses.* By Robert Jardine, M.D., etc., Professor of Midwifery in St. Mungo's College, Glasgow, etc., with 49 illustrations. Fourth Edition. London: Henry Kimpton. 1909. (Crown 8vo, pp. 320, illustrations 49, 5s.)

[6] *Das Geburtshilfliche Seminar. Praktische Geburtshilfe in achtzehn Vorlesungen mit 212 Konturzeichnungen für Aerzte und Studierende.* Von Dr. Wilhelm Liepmann, Privat dozent für Geburtshilfe und Gynäkologie, etc. Berlin: A. Hirschwald. 1910. (Imp. 8vo, pp. 255. M.10.)

sheer waste of time? We are not sure whether, notwithstanding the author's six years of experimental research, his knowledge is quite up to date, for he gives a table of the results of the "eclamptic poison" in which there is no mention of the liver. We thought it had long been recognized that in eclampsia there were morbid changes in the liver as well as the kidneys. Indeed, in a recent paper by a Montreal worker eclampsia is defined as a disease of the liver, with concurrent changes in the kidneys. Still, the number and the beauty of the pictures will induce people to look through this work.

NOTES ON BOOKS.

THERE has just been added to the Tudor and Stuart Library, one of the new enterprises of the Clarendon Press, an edition of *Browne's Religio Medici and Digby's Observations*,[1] printed from copies lent by Professor Osler. The text of the *Religio* follows that of the first authentic edition of 1643, page for page and line for line. To preserve identity of reference the errors of pagination (pp. 171 and 172 are duplicated) and section numbering have been left undisturbed. The text has been corrected from the *Errata* page of the original; a few obvious misprints, not there noticed, have also been removed. The book is printed with the types given to the university by Dr. Fell in 1660; linen rag paper has been used, and the volume is bound in stamped paper, imitating the binding of the Tudor period, in two styles, blue and white. If all this is not sufficient to stimulate every reader to obtain a copy, we may add that the type in itself, apart from its association, is very beautiful, extremely clear and very easy to read. Dr. Fell may therefore be held to have purged his faults, and no longer to be an object of dislike.

Merck's Annual Report, 1908,[2] consists, like its predecessors, of a summary of papers published during the year in the chief medical journals of the world dealing with the uses of new remedies and new applications of old ones. The growth of the employment of animal remedies is reflected in the fact that over 100 pages are devoted to organo-therapy. In the section on other drugs, a large number of the newest artificial remedies and vegetable principles are referred to, along with old-established drugs such as digitalin, male fern, and even castor oil. Full references to original papers make the compilation very useful. Medical men can obtain copies gratis by writing to Mr. E. Merck, 16, Jewry Street, London, E.C.

[1] *Browne's Religio Medici and Digby's Observations.* The Tudor and Stuart Library. London: H. Frowde; Oxford: The Clarendon Press. 1909. (Post 8vo, pp. 44. 5s.)

[2] *Merck's Annual Report, 1908.* Vol. xxii. London and Darmstadt: E. Merck. 1909. (Demy 8vo, pp. 348. [Free to medical men on application.] 1s. 6d.)

THE RELATIONS OF THE LAITY AND THE MEDICAL PROFESSION.

By Mrs. HODGKINSON,
Editor of the *British Health Review.*

IN stating the lay view of the relation of the medical profession to the public, there is no need to apologize for erroneous opinions, for mistakes are often highly instructive, and candour offers an opportunity for criticism and enlightenment likely to be extremely useful to all concerned.

Therefore, without further preamble, I will put a few of the considerations affecting the lay mind before an audience which seldom hears them frankly stated. Those of us who give any thought to the matter are far from satisfied with things as they are, and, if it be retorted that such persons are in a small minority, I reply that it is a growing one. It has already considerably leavened public opinion, and will leaven it still more thoroughly in the near future. That ideas are accepted entirely subversive of the old attitude towards disease and its treatment is a symptom that the more far-sighted of the profession will not ignore, especially as those by whom they are accepted are the thinkers and readers. The unreasoning part of the public—equally dissatisfied—betakes itself to the patent medicines so admirably analysed and expounded in a recent publication of the British Medical Association; and, in view of the sums thus spent, no one will, I think, contend that this is an inconsiderable body. The former section of the public is acquainted with the line which research is taking in many important matters, and, keenly conscious of what it considers the limitations of the profession, is convinced that the best hope lies in the recognition by profession and public of the fact that their relations—like everything that is living and healthy—must be progressive; and must, therefore, be subject to the law of change.

"Conscious as we are of one another's shortcomings" let us, then, review the situation.

The average man is brought up in complete ignorance of the laws of health or the natural needs of his body. He grows into certain habits, powerful for good or ill in their effect, without the least guidance as to the pitfalls in his way. The medical profession, a body of immense social and legal weight in the country, has made no organized protest against the absence of sound training in our schools in this matter. It has not even protected the heritage of health into which the children of the nation are born, for here again it has made no corporate representation on such subjects as clinics attached to the national schools, the marriage of the criminal, feeble-minded or insane, and those tainted with such diseases as poison life at its source. And there are other instances of failure in public duty. No Government, no public could have disregarded such protests; but they were not made, and the timidity of this policy has met its reward in the fact that it is laymen and women who have pushed forward the discussion and in some cases the active amelioration of such crying evils. It is they who are arousing the general conscience, and the result is a loss of prestige and influence to the medical profession which for many reasons is to be deplored. In certain stages of history ecclesiastical authorities too have refused their rightful position as leaders of reform, and the tide of vital affairs has ebbed and left them stranded. An example and a warning not to be neglected.

There is, indeed, a growing cynicism about the doctor's attitude towards reform. It is said that his interest begins and ends with disease, for that is his living, and that the road to health is one we must open for ourselves.

This view is really not unnatural. The antagonism between the interests of doctor and patient has furnished stuff for a library of epigrams; but the thinking laity believes the time is approaching for more revolutionary methods, and that there are measures, now denounced as Socialistic, which would reconcile these conflicting interests and secure the doctor's pecuniary position on the health and not on the disease of the community. Without casting any slur on the honour of the profession, it must be admitted that human nature is very human, and that if a man's living is based on the prevalence of illness his interests—nay more, his time—will not permit any very exhaustive study of prophylaxis. A wrong attitude to the communal welfare is thus perpetuated.

We have a conviction also that in treating symptoms as though they were causes a grave mistake is made, and yet this appears to us to be the line taken in our treatment both by physicians and surgeons. Say a tumour appears—a visit to the surgeon follows, and an operation, rightly or wrongly, is the next step. But the tumour was but a symptom. Of what was it a symptom? The almost miraculous surgical skill of the present day may be too dearly bought if it diverts attention from the physical state which preceded the tumour, and will produce myriads more. We are not even given experimental guidance. No one says "Try certain diets, reverse certain habits. Notify me, and let us watch the results together." Even apart from the possible physical benefit, the feeling of co-operation, the sense that he had a share allotted him in the investigation, would often be half a cure in itself for the patient.

The same with the physician. Periodic headaches may be the symptom. Again of what? Caffeine or some other pain-killer is ordered. Enough if the suffering is scotched. No radical search into the habits of life is organized. The indications are not scrutinized; the patient is not watched, nor is any courage shown in tempting and strengthening him to review the circumstances himself and make such new departures as may be worth testing.

We complain also that the time and care vouchsafed us by consultants are grossly inadequate in many cases. You are shown into the great man's room, and are lucky if you

get half an hour of perfunctory question and unenlightening reply. What is the use at this time of day (when some scientific certitude in examination is possible) of paying a visit of this duration, unassisted by exact methods? What the patient gets may be worth the money, but it is more by good luck than good management if it is. Compare with these antediluvian ways the means for diagnosis employed on entering Dr. Kellogg's Battle Creek Sanitarium. Something might be known of a man's physical status and capital when he has been through this mill. These (so to speak) drawing-room methods should be discarded in favour of a really searching examination, including blood count, test meals, and many other means which I have not space to enumerate. It is doubtless often easy for a man of experience to diagnose the class of tumour or whatever it may be. What he wants to know more of is the man and the conditions that produced the symptoms. Very little can be discovered with methods less strenuous, and much of the old-time awe and respect for the consulting room are therefore vanishing.

The medical mind may be misled into believing they survive, because courtesy and a wholesome ceremony with the man in whose hand your life may lie conspire to draw a veil over the resentment and distrust so often felt. But if we follow one half of Princess Lieven's recommendation of the conduct due to our physician: "*Obéissance la plus servile*," it is not unaccompanied by her witty aside—"*méfiance la plus absolue*." As a matter of fact, the public is wearying of empiricism.

"I have been to three physicians," I heard a lady exclaim with energy. "Every one of them gave me a different diagnosis. Not one examined me properly; not one inquired fully into my habits or gave me a word of sensible advice as to changing them; and not one of them appeared himself to be in such health as gave me the slightest reason to think he could be a very successful guide to others."

She was, perhaps, a hasty woman. Her expectations were possibly keyed too high, but it was certainly discouraging. She eventually cured herself by dropping starchy foods and restricting her allowance of meat to one very small daily portion. A simple remedy—but she had to discover it for herself.

I can imagine my readers snuffing the air and saying, "Aha! diet! Now we see the cloven hoof. Here is the food faddist unveiled."

Well, gentlemen of the Old Guard, if it be food faddism to believe that the profession—holding as it does our interests in trust—has blindly and almost unpardonably neglected the study of dietetics in health and disease, then I and many others are food faddists unashamed. We ourselves read books where opinions on these subjects are discussed and in terms that every educated person can apprehend. Some are written by medical men, some by the laity. We make our experiments. We come on personal or vicarious errands to your consulting rooms, and there we find men who neither know nor care what we are driving at; who either snub us or receive our advances with the blandness of ignorance, as guiltless of any *practical* knowledge of the work of Chittenden, Pawlow, Haig, Fisher, Kellogg, Ioteyko, Tissier, and many more, as the reserved and decorous persons who open their hall doors to us. The physician who takes up the study of practical dietetics with an unprejudiced mind, collecting information where it can be found, has a golden future before him, and one of almost unlimited interest and usefulness. We complain also of the morbid dread of responsibility into which excessive specialization forces its devotees. This bears very hardly upon us. The physician sends you post-haste to the surgeon. He dares not, apparently, wait, test, experiment. A year or two ago, on the first blush of appendicitis (if I may be poetical on a grisly subject) motors and aeroplanes were not swift enough to convey you to the operating table. Appendices fell round us like leaves in Vallombrosa, and singular indeed in good fortune was the mortal who preserved his own intact. Yet it appears from later experience that patience and a waiting game, with a suitable diet as an adjuvant (is not this the word?), will spare many an appendix to the world it adorns, and that it may even be better on the whole to leave the human economy (when at all possible) as Nature constructed it. We suffered in purse and person because the physician, under the influence of a panic, would not take the responsibility of delay. The surgeon is equally hasty. There are many surgical situations which could be alleviated by medical means. But he, too, will not delay. The knife cuts the Gordian knot, which in many cases could as well, if not better, be patiently untied. All this reacts on the public. We see that the physician distrusts himself and that the surgeon distrusts him. What is the natural result? Half of us spend our time reclining on that couch of Little-Ease, the operating table, and in that resort of dubious joy and indubitable expense, the nursing home. But we do not *prefer* this. We only do it because our physicians seem to know no better way. They must not throw away our interests with their own.

Extreme specialization bears very hardly upon those of us who are poor in spirit and in purse. I tender a very small instance:

A patient, having weathered through an intestinal operation, was tortured with facial neuralgia. In quavering tones he mentioned the matter to the surgeon, and was blandly repulsed. "My dear sir, I know no more about neuralgia than you do. You must call in a physician if you want advice."

But he could not, poor man, for the operation and the nursing home had absorbed all his small means, and he therefore endured the neuralgia as best he could until he left the house, and, hastening to the nearest chemist, provided himself with the best advertised bottle available. It wrought an almost immediate cure and, for aught I know, considerable future damage.

Far be it from me to suggest that the surgeon should have pretended a knowledge he did not possess. We are quite satisfied with the amount of this kind of pretension now at our disposal. No, some means should be devised by which the surgeon and physician co-operate in these cases, arranging the financial boundaries between the high contracting parties, and thus ensuring to the patient the benefit of the right and left hands of the profession. I have seen many cases where it appeared that this would be a desirable arrangement. But the patient was bled white in more senses than one. He could not afford the luxury. If specialists are as ignorant as they affect to be of all outside their own domain, then, considering their very handsome fees, the planet should be attended by a satellite whose fee is a part of that agreed. But need the specialist be quite so ignorant? Is it not partially a pose? or idleness? or hedging? or self-interest? I ask in great humility. We cannot be made to see that it is reasonable that the heart, for instance, can be viewed as a separate entity, and treated apart from the neuralgias and other algias which attend its disorganization. We are unable to detach these organs, willingly as we would do so, and being unable it appears reasonable to us that we should be treated as a whole, and that those who undertake the heart or the lungs should know something of the man whose general condition is the *fons et origo* of the defaulting heart.

This brings me to the question of fees.

(To be continued.)

THE Honorary Membership of the Italian Society of Obstetrics and Gynaecology has been conferred on Dr. H. Macnaughton-Jones, formerly University Professor of Obstetrics and Gynaecology in the Queen's University, Ireland.

DR. HEARSEY, Principal Medical Officer, in his most recent note on sleeping sickness in the Nyasaland Protectorate, states that two fresh cases of the disease have been found there, while three others have been notified from North-Western Rhodesia as emanating from it. With the three previously reported, the total number brought under notice up to the present is now eight. The histories of the cases are interesting, the extreme rapidity with which one died recalling the clinical pictures of many of the cases in Uganda seen during the earlier days of the epidemic in that territory. Unfortunately another European has contracted the disease, and this indicates that probably the infection is more widespread throughout the protectorate than is generally supposed. There would seem to be four definitely infected areas now: (1) Lake Tanganyika; (2) Lake Mweru; (3) the Luapala river; and (4) the neighbourhood of Chilanyama and the Loangwa river at that point. Dr. Hearsey has received no information regarding North-Eastern Rhodesia since the publication of his last memorandum, and it will be interesting to learn whether any cases have been detected there also.

THE JUBILEE OF THE DENTAL CHARTER, ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE charter enabling the Royal College of Surgeons of England to give licences in dental surgery was granted on September 8th, 1859, and the jubilee of this event was celebrated by a dinner given by the President and Council in the library of the college on December 2nd. On the same occasion the odontological collection consisting of preparations made by John Hunter and the collection formed by the Odontological Society were for the first time opened to inspection in the room specially prepared to receive them. Mr. Butlin, President of the College, was in the chair, and among the guests were a large number of representative members of the dental profession.

After the loyal toasts had been duly honoured, the President proposed the toast of the dental profession in the following allocution:

ADDRESS BY THE PRESIDENT.

GENTLEMEN,—When it came to the knowledge of the Council of this college that fifty years had elapsed since the Dental Charter was granted to the college, it seemed to the members of the Council fit that so important an event should be celebrated. After consideration they came to the conclusion that this might best be done by offering a dinner to the members of the dental profession in the precincts of the college. We should have liked to have entertained all our licentiates of dental surgery, but our space is limited, and we were obliged to confine our invitation to what may be called the representatives of the profession of dentistry. Our idea seems to have commended itself to you, for we have the pleasure of welcoming here a large number of distinguished members of your profession. I wish you, in the name of the Council, a hearty welcome, and I only regret that the time which has passed since the events which led to the granting of the Dental Charter is so long that we have no one here to-night who took such a share in those events as would have entitled him to tell us of them from his own personal recollection. In the absence of any such person, I have tried to make myself acquainted with the history of the movement; for I felt sure that those who do know something of it, and those who are as ignorant of it as I was myself, would like to be instructed or reminded of what actually took place.

At a recent meeting of our Council Sir Henry Morris said that the condition of dentistry fifty years ago was "chaotic," and I am sure he did not use too strong an expression. For a study of the literature of the time has taught me that dentistry was practised by all manner of persons. For instance, the chemists and druggists often associated the practice of dentistry with their ordinary business. And Clause LV of the Medical Act of 1858 places chemists, druggists, and dentists in the same category. Mr. Walter Brindley, of Sheffield, writes in 1857 (*British Journal of Dental Science*, i, 223): "For instance, in the last *Directory* for the town of Sheffield there is a certain practitioner . . . put down as 'brass-turner and dentist.'" Mr. Robinson, the President of the College of Dentists in 1858 (*British Journal of Dental Science*, ii, 17), said: "I recollect seeing some time ago in Regent Street a sign over a door to this effect: 'Mr. So-and-So, Dentist and Chiropodist.' I should certainly be very cautious in going into a house of that kind unless I had seen the man wash his hands, for I certainly should not like him to examine my mouth after operating upon some dirty person's toes." And Mr. Donaldson Mackenzie writes to the same journal in 1859 (iii, 151) to tell how, in his travels about England, he had studied the position of dentists, and "found one sexton, one or two delectable specimens of our present system of education, who could not sign their own name, and one doing a tolerable practice who could neither write nor read."

In truth, a man might serve a dentist one day in the capacity of servant or mechanic, and might set up as a rival to his master on the following day, provided he were clever enough to persuade the public of his capability. And he was free to advertise himself to what extent he chose. Even, then, however, they did things better in that respect in France. For I have come across a delightful specimen of the art (in a letter from Cosmos in the *British Journal of Dental Science*, iii, 47), which runs as follows: "Grande Maison de Dentition. Mons. et Mad. de S. announce that they set teeth with diamond pivots and stop teeth with emeralds." And they further remind the public that "it is useless to speak much of their new mode of extraction, as the process is entirely by steam, and is consequently the most efficacious of any system practised by other dentists."

No wonder that such ill conditions as these moved eighteen gentlemen practising dentistry in the year 1855 to meet and consider what could be done to ameliorate them. Their consideration resulted in the composition of a Memorial to the President and Council of this College,* which was sent up to the college in December of the year 1855, and was presented to the Council at its meeting in January, 1856. I have no doubt it was discussed, although I do not find any account of the discussion in our minutes. But it was referred to a committee of six members of the Council, with Mr. Green as their chairman. I wondered why there should have been so long an interval between the reception of the Memorial and the granting of the Charter, and not unnaturally thought there must have been some opposition at the Council Board. And I believe the Memorialists must have thought so, too; for, in February, 1857, they addressed a letter to the college asking whether anything, and if so, what, was being done. Mr. Edmund Belfour, the Secretary, replied to the effect that the legal advisers of the college had been consulted and had given it as their opinion that it was not competent for the college, under its present Charter, to do what the Memorialists had suggested. It would, therefore, be necessary to apply for a special Charter, and the Council could not do that while legislative measures were before Parliament, because they were in conference with and pledged to other medical corporations in respect to these measures.

In the course of the next year these legislative measures produced the Medical Act of 1858, in which Clause XLVIII provided that "It shall, notwithstanding anything herein contained, be lawful for Her Majesty, by Charter, to grant to the Royal College of Surgeons of England Power to institute and hold examinations for the purpose of testing the Fitness of Persons to practise as Dentists who may be desirous of being so examined, and to grant Certificates of such Fitness." The earliest possible advantage was taken of this clause, and the Dental Charter was obtained in September, 1859, just fifty years and a few months ago. The first Board of Examiners—Mr. Lawrence, Mr. Green, Mr. Arnott, for the surgeons; Mr. Thomas Bell, Mr. John Tomes, and Mr. Arnold Rogers for the dentists—was soon afterwards appointed, and in the following year (1860) the first examinations were held. In that year no fewer than 111 candidates took the diploma—a remarkable proof of the earnestness of the leaders of the dental profession, for some of those who passed the examination were qualified in medicine and surgery, and some had been leading men in their profession years before the granting of the Charter.†

Such is the official account of the transaction, and I would now like you to hear the human side of it. With the exception of the long delay in obtaining the Dental Charter there might seem nothing of interest in relation to the movement. In the Minutes of the Council and in

* I have had the Memorial printed with the eighteen names attached to it, that each one of our guests may possess a copy of it if he pleases. It will be seen that two motives are expressed in the Memorial, the condition of dentistry in England, and the much better position of dentistry in America. During the last twenty or more years, I have often heard the superiority of American dentists vaunted by rich persons in London, and I regarded this as a fashion of modern times, like the determination of such persons to consult foreign specialists in preference to their own specialists. I had no idea that American dentistry had really been so superior to English dentistry before the granting of the Charter. At the present time, there is no reason to believe that American dentistry is superior to English dentistry, or that the best English dentists are inferior to the most skilful American dentists. But in 1855 there can be no doubt that America was far ahead of England in the education and position of dentists.

† The number of those who took the licence in the first year is the more remarkable when it is remembered that the total number of dentists practising in England at that time was estimated at from 1,200 to 1,500. The Dental Act, which made qualification as necessary to a dentist as it is to a medical man, was not passed until 1878.

the official letters there is no trace of a hostile spirit.* But, it was far otherwise outside the college walls. For, no sooner did a number of the rank and file of the dental profession know of the Memorial than a meeting was called, speeches were made against the proposal, the independence of the dental profession was affirmed, and an association was formed to which the high-sounding title of College of Dentists was applied. The Memorialists, on their part, were not content with what they had already done. They also took counsel with their friends, and, without delay, established the Odontological Society of London, which at this moment forms the Odontological Section of the Royal Society of Medicine. Thus there was on the one side the Odontological Society with the policy of combination with the College of Surgeons; on the other side, the College of Dentists and independence. I think the College of Dentists had, perhaps, the larger number of members, but the society had the very pick of the profession. Its meetings were, from the first, characterized by high scientific value, and although surgeons occasionally read papers at them, the society contained so many men of ability—many of them qualified in medicine and surgery, and more than one of them a F.R.S.—that there was no need of outside help. The College of Dentists, on the other hand, could scarcely boast of one man of high position or distinguished ability among its ranks. But, nothing daunted, it called in outside aid, established courses of lectures, and actually obtained the services of Hulme, Benjamin Ward Richardson (a host in himself), Erichsen, and Spencer Wells. With the rise and growth of the two parties, there soon arose, also, two organs of the press, the *British Journal of Dental Science*, which took the part of the Odontological Society and combination with the college, and the *Dental Review*, which took that of the College of Dentists and independence. They went at it hammer and tongs, and a fine din there was. Every month, when the journals appeared, the sparks flew; and although no bones were, so far as I know, broken, there were furious attacks on reputations, and you may be quite sure that our college was not left out in the cold.†

The long period of apparent inaction on the part of the college afforded, as you may suppose, ample opportunity to the shafts of the enemy. The college never intended to do anything or to grant the petition of the Memorialists: it held them in ridicule: the Council were far too proud to be mixed up with the dentists. Such was the burden of the opposition orators and of the *Dental Review*. The grant of the Charter must, therefore, I think, have fallen heavily upon them. I have no doubt that some of the members of the College of Dentists consulted the *Review* as to the course they were to take; for that journal, in its issue of October, 1859, advises: "Do nothing." . . . "Then the hybrid Charter will do nothing." "The College of Surgeons will find their work much too warm to be pleasant," etc. But it soon became apparent that the combination party and the surgeons were in deadly earnest, and that the hybrid Charter would do a great deal. Nevertheless, the College of Dentists and the opposition still kept up their tail, and the College of Dentists seemed to me, as I read the articles and communications in the *Dental Review*, to be going quite strong when, to my astonishment, an extraordinary event occurred. For, on May 4th, 1863, the Odontological Society of London raised its head, opened its mouth, and swallowed the College of Dentists whole, so that no man saw it more. The only effect which this miraculous performance seems to have produced upon the society was that it swelled considerably from accession to its membership, and that it changed the form of its tail, for it became from that time the Odontological Society of Great Britain. I can tell you there was great jubilation that evening. The rooms of the society were filled. Mr. Arnold Rogers was there, in spite of illness. Mr. Imrie, the President of the College of Dentists, was there, but not able to make a speech on account of an "affection of his throat," and so his speech was delegated to Mr. Samuel Rymer, who had fought the battle valiantly for independence, but had also been largely instrumental in conducting the negotiations between the society and the College of Dentists to a successful issue. There were congratulations and a great shaking of hands, and that night and in that fashion the opposition came to an end. I confess I was quite sorry when the proud College of Dentists wound up its affairs. I had come to have a secret liking for it, and particularly for that gallant fighter, Mr. Samuel Rymer, who died only last year, as our obituary list is witness. Looking back upon the fight, it is interesting and sometimes amusing, but I am sure it was very bitter at the time, and the party for combination must have often felt aggrieved at the tactics of the opposition and the manner of their attack. From the political point of view, I can have no doubt that the effect of the opposition was very valuable. It acted as a useful stimulus, and, without doubt, had no little influence in keeping up the spirit of the Memorialists and their party during the long years of waiting and inaction.

When I had learnt all these things I naturally wondered what effect the granting of the Charter had produced on dentistry. I expected to find great developments in the course of the next few years. Somewhat to my surprise, I found what seemed to me to prove that the effects had preceded the cause. What I should have expected to happen in the course of the next five or ten years, happened in the five years between 1855 and 1860, or nearly within that period. The two great dental hospitals were founded. Two schools of dentistry were established. The Westminster General Dispensary also made arrangements for the teaching of dental students. The dental journals which I have quoted made their first appearance; and I think what must be called the first scientific treatise on dentistry was published from the pen of Mr. John Tomes. In fact, the agitation which led to the granting of the Charter and the establishment of the diploma was so strong, that it produced these great results in addition to the Charter. Nor were the provinces behind in this respect. The Dental Dispensary was founded in Birmingham even earlier in the year 1858 than the dental hospitals in London. Liverpool had its dental hospital in 1860, and, where Liverpool stepped, you may be sure Manchester was not far behind.

There was another foundation during that period. The Odontological Society was scarcely established when its members began to collect the material for a museum. I cannot associate any name or names with the museum at its origin, but I feel sure that no one here will feel aggrieved if I attach the name of one of our guests to the later development of the collection. I believe all those who know will admit that Mr. J. F. Colyer has had as much as, perhaps more than, any other person, to do with making the collection one of the finest, if not the very finest, collections which the world can show. As you all know, it used to be lodged in the rooms of the Royal Society of Medicine in Hanover Square, but it was very little used there, not nearly so much as it deserved.

I need not enter into the history of the negotiations which culminated in its transference to our care on terms of a like kind to those on which we hold the Hunterian Museum. It suffices to say that we have gladly accepted the responsibility of guarding the collection, and that we have prepared for it a large room in the basement, and have had a staircase constructed to convey visitors directly to it. I hope you will presently visit the odontological collection, for, although it is not yet

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* The only sign of hostility I find is contained in the last paragraph of Mr. Belfour's letter: "At the same time, the Council entertained a strong opinion that the surgical qualification for the proposed examination of practitioners of dental surgery should be the same as that required for the membership of the College." Whether this point was really pressed at the meetings of the Council, there is no evidence to tell, but it certainly does not appear in the further negotiations.

† Mr. William Perkins accused Mr. John Tomes of having written an article containing "scurrilous statements." But, unable to substantiate the charge, he was reduced to saying that at any rate he believed that Mr. Tomes was the editor of the journal in which the article had appeared.

Of the College of Surgeons, the *Dental Review* says, in the year 1859 (i. 394): "This feeling (of independence), so natural to every man on this island, would be alone sufficient to stop the progress of the movement now being tried of making the dental profession the humble vassal of the London College of Surgeons—a college which has sold itself to money-making schemes and despotic government with such unceasing zeal that in medicine and surgery it is looked on with universal disfavour, and which lives not on its deeds but on its possessions: viz., a fair library, a large block of stone-work, and a museum collected by the industry of John Hunter."

After the establishment of the examination for the dental diploma, the *Review* expressed itself thus: "A few more years, indeed, of this false policy, of this selfish, grasping, usurping rule, and the College of Surgeons will, in the nature of things, stand with shame-subdued face, and cold, creeping mien, the wreck of fortune, and the laughing stock of its enemies. We who give it this timely warning, however, are not its enemies," (vol. ii, 206).

ready for study, the energy of our Conservator, Dr. Keith, and the attention of our Secretary, Mr. Forrest Cowell, have made it ready for your inspection to-night. The access to the staircase is through the doorway behind the statue of John Hunter, and I would have you pay attention to the statue as you pass it by. The members of the Odontological Society have every cause to be interested in it, for, just fifty years ago, a number of the members of that society clubbed together, and sent a cheque to Mr. South for £50 towards the erection of the statue.

All the matters I have referred to are of interest, but they did not quite satisfy my mind. I wanted to know whether any change had taken place in the science of dentistry itself. Fifty years ago the advocates of independence based their policy on what they believed to be the actual position of dentistry. "We are clearly, by policy and by practice, a body distinct from Medicine. We are kindred to it, but not of it." So said the *Dental Review* (i, 20, 1859); and the same year the *Medical Times and Gazette* wrote (December, 1859): "That Dentists may possibly be better for a surgical examination we do not deny; but dentistry is essentially a mechanical art, with which surgeons are not conversant." In order to see whether such views still hold good, I made some study of the earlier and later volumes of the *Odontological Transactions*, and found that, although some of the earlier volumes contained papers of wide interest in connexion with the teeth, these were for the most part the work of surgeons, that the later volumes contain many more communications of this kind, and that they are for the most part furnished by dental surgeons. Such are papers on the Anatomy of the Teeth and its Practical Application; on Odontomes; on the Bacteriology of Pyorrhoea, and on its Relation to Constitutional Conditions, and on the Vaccine Treatment of Pyorrhoea; on the Relationship between Dental and Other Diseases—to tuberculosis, for instance; on Diseases of the Teeth in Horses. Some of the papers are certainly by surgeons—for instance, the paper of Mr. Owen on Tooth Disease in Children; and Mr. Godlee has contributed much to our knowledge of the bearings of pyorrhoea alveolaris. But most of the papers of this stamp are by persons practising dentistry. I then studied such treatises on dentistry as our library contains, such as Sir John Tomes's book, which is now edited by Charles Tomes and Nowell, that of Smale and Colyer, and Henry Sewell's book, now edited by England and Sefton Sewell. The authors are nearly all personal friends of mine, and I wanted to see how they had acquitted themselves. Nor was I disappointed. The early chapters of these books are occupied with such matters as anatomy and development, irregularities and abnormalities of the teeth, caries and diseases limited to the teeth, to stopping and extraction of the teeth. But the later chapters deal with matters far outside the immediate limits of the teeth—with gingivitis and stomatitis; with tumours of the gums and jaws; with affections of the antrum and accessory sinuses; with neuralgia (as apart from odontalgia) and affections of the nervous system which depend on conditions of the teeth; with affections of the nose, the eye and ear, which are associated with the teeth; with such general diseases as gout, tubercle, syphilis, as they affect the teeth or are affected by conditions of the teeth; with oral sepsis and the bacteriology of the mouth, etc. In fact there is no difference in the general treatment of the subject between the textbooks on dentistry and those on ophthalmology, otology, laryngology, and the like. Or, if there be a difference, it is rather that the subject is treated on broader lines in the textbooks on dentistry.

From the point of view of an outsider, the teeth seem to me as important in their relation to the health of the individual and of the community as the eye and ear. The early decay of the teeth, and the conditions on which it depends in these degenerate times, are matters of national importance. The presence of a dental surgeon is of more value to an army in the field than the presence of almost any other specialist.*

In truth, a great change has come over dentistry. It is no longer "the mechanical art of dentistry"; it is the art and science of odontology.† And this change has been effected in the course of fifty years, by two generations of men. Seeing this change, I asked myself, What are they going to do with it? And I ask you, Gentlemen, What are *you* going to do with it? You have made odontology one of the great specialities of medicine, and yet the most of you stand outside medicine; in such a manner that I cannot help perceiving that the present position of odontology is a standing menace to medicine, for it presents the remarkable spectacle of a large number of men practising a speciality in medicine who are not qualified in medicine.

I speak advisedly when I use these words. And I will give you a reason for them. During the last year in which I was Dean of the Faculty of Medicine of the University of London a proposition was brought before the Faculty to establish degrees in dentistry. It came, as I think, from the Board of Dentistry, and was presented in two forms—the establishment of degrees which should only be given to the holders of M.B., B.S., and of a degree of Bachelor of Dentistry, to be given to persons who had not qualified in medicine. I presided over the meeting of the Faculty at which the question was discussed. The second proposition was supported by the surgeons rather than by the dentists, and was attacked by the dental members of the Faculty. The proposition to establish degrees in dentistry was rejected by 16 votes to 13. Shortly afterwards I became a member of the Senate of the University, and I had not been there long before this proposal to establish degrees in dentistry was sent up to the Senate, recommended by the Academic Council. It was nearly passed through the Senate, but was deferred on my motion. Later, it was referred to the Committee of Medical Members of the Senate. If my memory serves me true, nine of us were present at that meeting of the committee. Eight of the nine voted in favour of the degrees, and my vote alone prevented a unanimous recommendation to the Senate. Before the question again came before the Senate I had gained to my view two or three of the medical members, and had been supported by the opinion of some of the leading practitioners of odontology in London. So that, when the final discussion took place in the Senate, it ended in a resolution, moved by Sir William Collins and seconded by Mr. Butlin: "That the next business be proceeded with." I was even more shocked at the arguments which were brought forward in favour of these degrees than I was by the proposal itself. Some of them were weak; others of them were wicked. Of the weak arguments, I need only mention that which averred that the operations of dentistry are so delicate and difficult that they must be learned and practised from a very early age. The answer is: What of the operations on the eye? And what of the men who qualify in medicine and surgery before they take up odontology? Are they bunglers in manipulation? Assuredly not, for among them may be found some of the most brilliant practical men. Of the wicked arguments, again I need only mention one. It was that which represented to the Senate that other universities had already established degrees in dentistry for persons who were not qualified in medicine, that still other universities contemplated establishing them, and that the London University must either follow suit or a large number of dental students would be lost to London. An excellent argument against the multiplication and rivalry of universities, but not an argument in favour of establishing university degrees of an inferior class.

No, Gentlemen, I am afraid the present position of odontology can only be justified on one of two grounds: that every young man who wishes to practise one of the "ologies" should be permitted to do so without qualifying in medicine and surgery; or—but I am sure you will not accept this — that odontology stands on an inferior plane to all the other great "ologies" of medicine. If

* Mr. Arnold Rogers, F.R.C.S., in his Presidential Address before the Odontological Society in February, 1859, said: "I believe, further, that the day is close at hand when dental surgeons will be brought into requisition in the army, or else that men specially qualified to treat dental diseases will be appointed to battalions." There had already appeared an article in the *British Journal of Dental Science*, iii, 46, in favour of this course, but "the question naturally arises, where can we obtain a staff of competent dentists, if called for?" etc. In those days the soldier had still "to bite the cartridge."

† It must be thirty years ago when Mr. Thomas Arnold Rogers came to me in Queen Anne Street and suggested that I should give a series of demonstrations or lectures on subjects connected with the teeth, but having a wide range, as he wanted to encourage the younger generation of dental surgeons to view their work from a less narrow point. I was sorry that my engagements did not permit me to accept his kind invitation.

you will have neither the one nor the other of these two alternatives, I would suggest, in the interest of odontology, in the interest of medicine in its widest sense, and, last but not least, in your own interest, that you should do all that lies in your power to take the next great step forward, and place your speciality on the same lines as, and in equal position to, the other great specialities of medicine.

Though the President's speech was long, he kept the attention of his audience completely, and many of his points were warmly applauded. Mr. William Hern, President of the Odontological Section of the Royal Society of Medicine, which continues the Odontological Society, in responding to the toast, said that there was no doubt at all that the power obtained by the Royal College of Surgeons of England to grant a Licence in Dental Surgery had greatly assisted those who a few years later sought, and eventually obtained, the Dentists Act, which formed what had previously been an unorganized body into a definite profession. A brief inspection of the museum showed that in its new home it would provide great facilities for teaching purposes. The toast was also acknowledged by Mr. H. R. F. Brooks, President of the British Dental Association, who said that the institution of the Licence in Dental Surgery and the passing of the Dentists Act which followed on it had educated the laity and the State to appreciate the importance of dentistry, and had paved the way for a greater appreciation of the importance of the care of the teeth in childhood. It had also systematized the education of dentists, and had stimulated the growth of ethical ideas among members of the dental profession, promoting the good of the profession and of the humanity it attempted to serve.

The toast of "The Royal College of Surgeons" was proposed by Mr. Charles S. Tomes, F.R.S., who said that after the very full account the President had given of the origin of the movement which resulted in the college obtaining the Charter enabling it to grant a diploma in dental surgery, it would be unnecessary for him to go into the history of the matter. It was only, however, by looking back to the condition of the profession of dentistry before the grant of the Charter that the great change brought about by it could be realized. Before that there was, in fact, no organized profession; this fact was illustrated by the way in which his own father became a dental surgeon. He had been house-surgeon to the Middlesex Hospital for nearly two years; while holding that office he had had to do a good many extractions, and had devised the forceps afterwards so generally used, and he had also worked at the histology of the teeth but with no intention of practising dentistry. For family reasons it suddenly became important that he should earn his own living, but though he had held the responsible position mentioned he had not obtained a medical or surgical diploma. He was strongly advised by some of the most distinguished of his teachers to take up dentistry, and was able to do so at once, for there was no diploma in dental surgery in existence, and no State regulation of dentistry. The institution of the diploma had not only rendered possible the organization of the dental profession, but had greatly stimulated the study of the science of odontology. He coupled the toast with the name of Mr. Butlin, who in a very brief reply, said that the views he expressed in the later part of his speech earlier in the evening were founded on the arguments placed before him by the dentists themselves when a few years ago the proposal to institute a degree had been before the Senate of the University of London.

The Odontological Collection.

We are indebted to Professor Arthur Keith, M.D., F.R.C.S Conservator of the College, for the following description of the odontological collection:

The Odontological Collection, whose history was related by the President in the speech reported above, was open for inspection, and was visited by a large number of those who had attended the dinner. It is one of the most important additions ever made to the museum of the college, an addition which constitutes the most extensive and valuable odontological collection in the world. The occasion might, indeed, be regarded as the jubilee of the odontological collection, as well of the Dental Charter. It may interest our readers to know something of its extent as now exhibited for examination and study in the museum of the college.

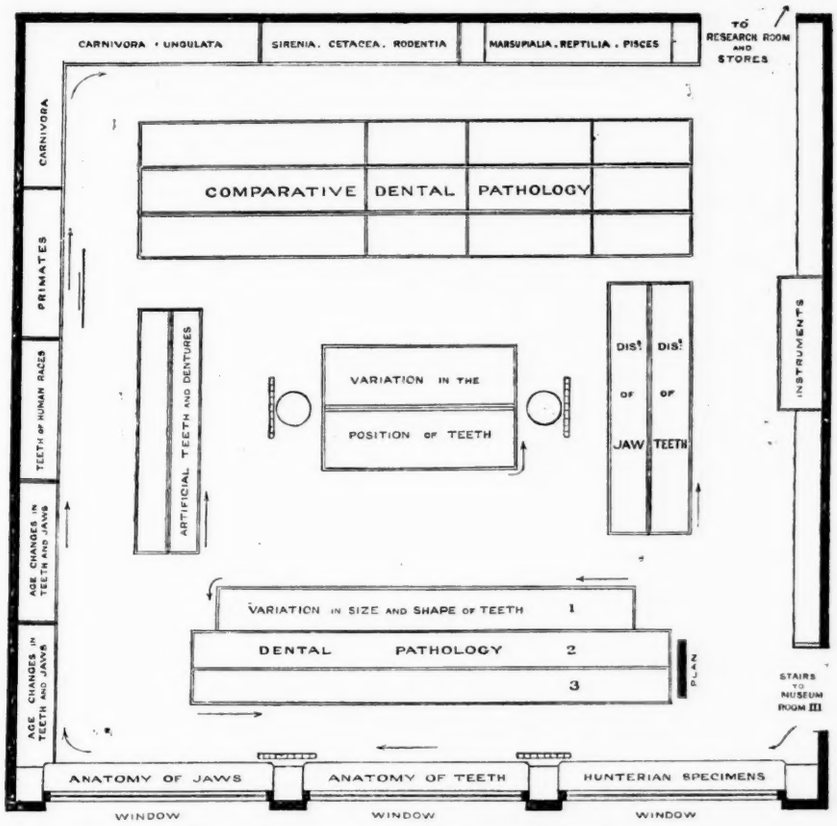
Of the 5,000 specimens now there, over 4,000 belonged to the museum formed by the Odontological Society of Great Britain, and it is with the history of this part of the new collection we propose to deal first.

As is well known, the Odontological Society came into being in 1856, under the name of the Odontological Society of London. It consisted at first of a small group of dentists of good standing, who petitioned the Royal College of Surgeons to undertake the examining and licensing of dentists, who, when they had accomplished their primary object, banded themselves as a permanent society, to discover, propagate, and diffuse all such forms of knowledge as might be applied to the improvement of the art and science of dentistry. Amongst the original members of the society were men imbued with that scientific and altruistic spirit which marks the great scientists of the mid-Victorian period—men like Samuel Cartwright, F.R.S., the first President of the Society, and like John Tomes, F.R.S.—men willing and able to follow in the footsteps of the founder of scientific and dental surgery—John Hunter. It may be said without any degree of exaggeration that this society set out to form the best odontological museum in the world without knowing it. Like Topsy—it simply grew. In the *Transactions* for 1857—the second year of the society's existence—we find that scientific communications frequently took the form of instructive preparations shown by members at their meetings. Members of the society were quick to realize that such exhibits proved most valuable and permanent records of freshly-observed facts, and were as worthy of preservation and perpetuation as the practical and scientific communications published in their *Transactions*. Thus it became the habit for members to leave their exhibits as well as their papers with the secretary of the society, and being a busy society with a collecting instinct, the number of specimens grew apace, so that in 1860 the term "museum" begins to be employed for their collection.

A curator was found to be necessary, and although not the first, Mr. Charles Tomes, F.R.S., may be counted the pioneer curator. In 1882, Mr. Tomes, then a young man and walking in the footsteps of his father—who presented many of the preparations now to be seen in the collection of to-day—compiled the first descriptive catalogue, which was duly printed and published for the society. The specimens then numbered 800; they illustrated every form of scientific and mechanical activity manifested by the members of the society. The anatomy, eruption, and fixation of the human teeth were represented; so were the multitudinous forms of dental irregularity and dental pathology. Examples of early artificial teeth, of dentures, of cunning and finished dental mechanisms and instruments which had served their day and generation, were safely housed and preserved for us of a later generation—records of evolution in dental technique, appliances which would have otherwise lapsed into oblivion. At this early date in the society's history (1872) the study of the comparative anatomy and comparative pathology of the teeth was being actively pursued, and the beginnings of these collections were laid, which have become so great in later times. In 1884 a second edition of the catalogue was prepared and published when Mr. S. J. Hutchinson was curator, the greater part of the labour falling on Messrs. W. and H. Weiss. The collection then numbered over 2,000 specimens. Some twenty years later the present honorary curator, Mr. J. F. Colyer, prepared a new edition of the catalogue; the labour involved was very great, for the number of specimens amounted then to over 4,000, many of them having been prepared and added by Mr. Colyer. In his time the comparative side of the museum—especially the pathological series—had expanded very greatly.

Then came 1907, with the formation of the Royal Society of Medicine and the affiliation with it of the Odontological Society of Great Britain as the Odontological Section of the Society. The Museum had overgrown the accommodation at the disposal of the society; it had reached a size and an importance far beyond the scope of an upper room in Hanover Square. The men who had

fostered and developed the collection saw by 1908 that its further growth and fuller appreciation demanded a new home where the collection might be accessible to all engaged in advancing the knowledge of the art and science of dentistry. The Council of the Odontological Section made overtures, through the Royal Society of Medicine, to the Council of the Royal College of Surgeons of England. Sir Henry Morrris, Bart., was then president of the College, and Mr. Butlin chairman of its Museum Committee. The overtures made by the dentists met with a sympathetic reception. Negotiations were entered into, with the result that the collection, which had been gathered by fifty years of labour, expenditure, and generosity on the part of the members of the society, was handed over to the Royal College of Surgeons as a trust. The college undertook to house the collection, to maintain it, and to increase it by the addition of their own collection of specimens representing the anatomy and pathology of human teeth. To the Odontological Section of the Royal Society of Medicine was given the right of nominating five trustees to inspect the collection and advise with the Museum Committee as regards its welfare. This is a most wise provision, for it secures for the collection a maintenance of that close connexion with the dentists which in the past has given to it growth and prosperity. The Odontological Section has also the power to nominate an honorary curator to assist the conservator of the museum with the cataloguing and arrangement of dental specimens, and special privileges of access to the collection and workroom are given to members of the Odontological Section who wish to pursue special studies or investigation in connexion with the collection.



Plan of Arrangement of the Specimens of Odontology.

In order to secure a room large enough to accommodate this extensive collection the Council of the college found it necessary to effect very considerable structural alterations in the museum at an expenditure of over £600. As soon as negotiations were completed, in June of the present year, alterations and preparations were carried out in the college museum according to plans designed by Mr. E. C. Frere, A.R.I.B.A. By the middle of October the new premises were far enough advanced to allow the collection to be placed in its new home. The incorporation of the college specimens demanded a considerable alteration in the arrangement which had prevailed in the cramped museum in Hanover Square.

As now shown in a commodious room, with store and workrooms adjoining, the collection contains over 5,000 specimens, one-fifth of which represents preparations added from the college museum. The history of this part also deserves a passing notice, but before entering on that matter, it may be well to state here that the specimens derived from the Odontological Section of the Royal Society of Medicine, those from the college collection, and those which will be added in the future, are to be distinguished by special marks placed on the specimens.

Turning for a moment to the specimens added by the college, it is unnecessary to remind readers of the BRITISH MEDICAL JOURNAL that the founder of the museum was also the founder of scientific dental surgery, and that his earliest great work was one *On the Natural History of the Human Teeth*, published first in 1771. Thanks to the watchfulness and care taken by conservators of the college museum, all the specimens used by Hunter to illustrate that work, most of which were made by his own hands at an early period in his career, have come down to us intact and in excellent condition. Hunter's own specimens, as may be seen from the annexed plan, meets the visitor as he enters the new odontological room. They occupy the window case at the door and serve as a preface or introduction to the whole collection. We said the specimens were in good condition; so they are, all except the teeth from the madder-fed pigs. Unfortunately the madder-stained layers, by which Hunter showed the manner in which the dentine grew, have lost their colour. That could not have been prevented owing to the unstable nature of the dye. The excellent series by which he demonstrated the formation and growth of the dental sockets, the preparations he made to show the time and manner of the eruption of the teeth and growth of the jaws are as fresh and complete as on the day in which they were made. The specimens of teeth he transplanted in the mouths of some of his patients, and which served their purpose for some years before they dropped out, are there to show the degree of absorption of their roots. Here, too, may be mentioned an original drawing by Rowlandson, made a few years after Hunter's great work on the teeth was published, representing in his free and semi-caricaturish style the operation of transplantation, as seen in the consulting room of a dentist of that date. This drawing hangs near by with other pictures belonging to the original collection of the Odontological Society. Another remarkable series by Hunter illustrates his method of showing the various structural elements of teeth by charring them. The enamel becomes white and the dentine black under the influence of fire. The method is especially successful in showing the complicated enamel pattern in teeth such as those of the horse.

The second window case on the visitor's left (see plan) illustrates the development and structure of teeth by preparations derived from the college museum. Many of these were made by Hunter. Some were made by his pupils, one, showing the dentition of a child, having been made by Mr. William Lynn (afterwards President of the college) when a pupil of Hunter. Sir Everard Home, Hunter's brother-in-law, has also specimens in this case

to show the neatness of his handiwork. The specimens prepared by Nasmyth to demonstrate the enamel membrane, which still passes under his name, are also shown in this case.

The third window case is devoted to the anatomy of the jaws and mechanism of mastication. The series of specimens prepared by Mr. Caplin to illustrate his paper on the Anatomy of the Antrum are also shown in this window case. These preparations are the concrete illustrations of his often-quoted paper in the *Transactions of the Odontological Society*. Indeed, many of the exhibits are the subject matter of papers published in the *Transactions*.

So far the exhibits mentioned in the present—which, by the way, is merely a provisional—arrangement of the room are those derived from the college collection. Before proceeding to draw attention to the contents of other cases it is convenient to mention here the very large and valuable addition made by the pathological specimens added from the college collection. These have been slowly accumulated during the past hundred years, and illustrate the commoner as well as rarer forms of dental anomaly and of disease.

The general arrangement of the collection may be gathered from the annexed plan. It is proposed here merely to direct attention to some of the more important sections. First and foremost are the two wall cases which illustrate all the changes which are to be seen in the human jaws and teeth during the period of formation and eruption. This subject is represented by nearly 200 specimens obtained from all periods of life between the seventh month of fetal development and the twenty-fifth year of life. A case, which we hope will soon require expansion, is devoted to the exhibition of the dentitions and jaws of prehistoric races, and of the less civilized modern races. The plan also shows the large space given to the representation of the sections illustrating the comparative anatomy and the pathology of the teeth. A survey will convince the visitor how richly these sections deserve the space allotted to them.

Perhaps the most remarkable feature of the collection is the wealth of examples of dental irregularities—abnormal forms of crown and fang, of implantation, of eruption, of crowding, and of number. Truly Nature suffers many mishaps in the formation and production of human teeth. A dentist has to be prepared to meet all kinds of developmental vagaries. Only those who have seen this collection could guess how many. In specimens of odontomata, and especially in specimens of tartar formation and deposit—some of which reach an uncredited size—the collection is extremely rich. A number of bone dentures and of artificial teeth are exhibited to demonstrate the fact that caries attacks dead as well as living structures. As can be readily understood, caries of the teeth, diseases of the periodontal members, gumboils, and necrosis of the jaw following diseases of the teeth, have very full representations. Malformations and tumours of the jaw are given accommodation in two large cases.

The various forms of artificial teeth and of dentures are shown in historical sequence, so that the visitor may see the extraordinary activity and ingenuity that has been manifested by generations of dentists before the more perfect modern means and patterns were evolved. It is not too much to say that some of the old specimens here shown attain a high degree of artistic merit, some are priceless in that they could not be replaced, and all are valuable. The instruments used for the extraction of teeth are also arranged in historical sequence; some, perhaps, are clumsy and strong enough to be used by Samson-dentists in a population of giants; others are delicate and ingenious. Dentists have been free in their donations to this section, yet there still remain some blanks to be filled in.

The collection here so briefly described may be truly described as national in character. It is open for study and for research to all engaged in furthering the means of maintaining the teeth of the nation in health, and of treating them when diseased. The leading dentists, surgeons, and anatomists have, in the course of the last 150 years, built it up by their collective efforts and patriotism. The Royal College of Surgeons of England has now housed it and undertaken its maintenance and its expansion—a very considerable financial burden.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.

At a special general meeting of the members of the London and Counties Medical Protection Society, held on November 24th, 1909, at 31, Craven Street, Strand, Dr. G. A. Heron, the Chairman, moved a resolution approving the action of the council in arranging for an insurance of the members of the society against any damages or costs up to several thousand pounds which might be awarded at any time against any member in any proceedings which the society might undertake on behalf of its members, pursuant to Article 16 of the articles of association of the society, and for that purpose to raise the subscription to a sum not exceeding £1 per annum. Dr. Heron said that the council desired to secure a form of assurance which should cover the risks of a member of the society as to costs and damages given against him in any trial at law in which his case was undertaken by the society and in which he was unsuccessful, or which was settled either in or out of court. More than one proposal for the covering of these risks by assurance was being or would be considered by the council. The council would strictly guard the right to conduct a trial at law in the way thought proper. To that end the council would keep in its own hands the right to defend and to refuse or cease to defend, to settle and to decline to settle, in or out of court, any case submitted by a member. In short, the assurance, if and when it was completed, would leave the members of the society exactly where they now stood with regard to the council of the society, but each member would have the comfort of knowing that he had a material sum assured to him with which costs and damages given against him in an unsuccessful action at law would be met. The sum to which each member would be entitled to look from his assurance against costs and damages given against him in an unsuccessful action at law would amount to at least £2,000 in any one year; but the actual amount must be left to the council for final settlement. The council was bound in a matter of that kind to take possibilities into account, and therefore asked the members to pay 10s. a year each for that assurance in addition to their subscription of 10s. a year to the society, so making the annual liability to the society 20s.

Dr. Major Greenwood opposed the proposal because he did not think that it would be a good thing for medical men to feel that in any case, if there were an adverse verdict against him, he would not have to pay damages. Anything of that kind would certainly tend to increase litigation.

After the Chairman had explained in detail that the privileges of members would remain as before, and that by the proposed assurance members would be further indemnified against any costs of the other side, and any damages up to £2,000 which might be awarded against them, if actions undertaken for them by the society were unsuccessful, the resolution was put to the meeting and carried.

The usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on November 19th, Dr. de Havilland Hall in the chair. The committee passed a resolution expressing to Mrs. Clutton, widow of the late H. H. Clutton, F.R.C.S., for many years one of the treasurers of the society, their sense of the loss they have sustained by his death and their sympathy with her in her bereavement. A long list of sickness claims was presented. These were for the most part light cases of short duration, but a few seemed likely to last at least through the winter, and in some instances to become additions to the list of permanently incapacitated members. Although the claims have been numerous, the general financial results of the year's working have been very satisfactory. The number of new entrants has been far above the average; and as no agents are employed and the society allows no commission or any other payment for the introduction of new members, the growth in numbers shows that the advantages offered by the society are becoming better known and more appreciated. Every year shows a considerable addition to the invested funds, which now amount to over £230,000, and to the income of the society, which now exceeds £27,000 per annum. Prospectuses and all particulars can be obtained on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

THE ROYAL COMMISSION ON THE POOR LAWS AND RELIEF OF DISTRESS.

REPORT ON SCOTLAND.

In previous articles on the report of the Commissioners reference was made to the different forms of medical relief, the overlapping of charities, and the functions of charity and the Poor Law. It will, perhaps, be of some interest to give a summary of the existing provisions of the Poor Law, and of the recommendations of the Majority and Minority Reports showing the manner in which they propose to deal with the subject.

History of Poor Law Administration.

As at present administered the Poor Law of Scotland is based upon the Poor Law Act of 1845 which was the result of a Commission appointed in 1843. Previous to the passing of the Act of 1845, the area of administration was the parish, the imposition of a poor rate was not obligatory, in a great majority of parishes no rate was levied, and there was no supervision by a central department; the duty of administering relief was in the hands of (1) in Parliamentary burghs, the magistrates, in (2) landward parishes, that is, districts outside burghs, the Kirk Sessions and heritors (that is, landowners), and (3) in partly landward and partly burghal parishes, the Kirk Sessions, heritors, and magistrates. In England, prior to the passing of the Poor Law Act, Poor Law administration relieved the able-bodied poor. In Scotland the able-bodied poor were not relieved by the Poor Law. The Commissioners appointed in 1843, therefore, were not required to recommend a means for the reduction of pauperism, such as obtained in England under the name of the "workhouse test." What they had to consider in Scotland was how to secure that all persons legally entitled to relief should receive it, and that, when it was given, it should be adequate to the needs of the individual. That the then existing machinery for the relief of the poor in Scotland was defective was abundantly proved by the Commissioners of 1843. They found in almost every parish visited by them that those responsible for the care of the poor showed an anxiety "to make it appear that the poor were comfortably provided for." The Commissioners reported that so inveterate was the self-satisfaction of the relief authorities, that an indispensable preliminary to any reform was that the administration of the Poor Law should be brought under the review of an enlightened public opinion. This inquiry resulted in the passing of the Poor Law Amendment (Scotland) Act of 1845.

The Board of Supervision and the Local Government Board.

Chief among the methods suggested by the Commission was the establishment of an unpaid Board of Supervision in Edinburgh. To this board the local Poor Law authority in each parish were required to furnish at least twice in the year information as to the condition of the poor under their charge, and this information was to be submitted to the Secretary of State in an annual report to the board. This board continued to exist until 1894, when its functions were transferred to the Local Government Board for Scotland. The establishment of the Local Government Board introduced two important changes: (1) The direct representation of the Board in Parliament, the Secretary of State becoming its President; and (2) the appointment of three paid members devoting their whole time to the work of the department, one of these members being a registered medical practitioner who is also a holder of a Diploma in Public Health or has been for not less than five years medical officer of a county or burgh.

An important power which the Scottish Local Government Board exercises over Poor Law administration is that of inquiry and report. The Board is empowered to inquire into the administration of the Poor Law in any parish, and has full powers to summon witnesses and examine them on oath, and to call for books and papers. The Board may authorize one of its members to make a special inquiry on its behalf, but usually the inquiries are undertaken by a commissioner specially appointed for the purpose, and are chiefly conducted by officers of the Board, whose status corresponds with that of the general inspectors under the English Board. These officers, of whom there are four, are designated general superintendents of the poor. For carrying out such an inquiry, a general superintendent is endowed with all the powers of a Special Commissioner. One of the duties of the general superintendents is to take every opportunity of explaining to the poor and the people generally their right to apply to the Sheriff if they are refused relief, and to the Board if they consider the relief granted to them to be inadequate. But, along with this power of interference to ensure the adequate relief of individuals, the general superintendents discharge a valuable function in scrutinizing the roll of the poor in each parish, for the purpose of calling attention to those persons who are not proper objects of relief, or of outdoor relief. The right of the Board to determine, on the appeal of an individual pauper, whether the relief granted is adequate, gives them a far-reaching influence on administration.

Another power in the hands of the Board is control over their inspectors of poor. Neither the appointment nor the salary of an inspector requires the approval of the Board, but it has the power to dismiss an inspector who fails, or neglects, or refuses to perform his duties, or who is unfit or incompetent to discharge them.

The Board may similarly dismiss the medical officer of a poorhouse, and also the medical officer of a parish which participates in the medical relief grant. The Board's power to dismiss the medical officer of a parish is obtained through the conditions attached to participation in the medical relief grant, and under them also no alteration may be made in the salary of a medical officer without the consent of the Board being first obtained.

It will thus be seen that the whole administration of the Poor Law relief in Scotland is practically in the hands of the Local Government Board, which, with the help of its superintendents, sees that it is properly carried out.

Proposed Future Relations of Local Government Board to Public Assistance.

The Majority Report proposes certain alterations in connexion with the administration of the Poor Law.

The Commissioners state:

> We have now to consider what should in future be the relation between the Local Government Board and the administration of the Poor Law, or, as we propose to call it, Public Assistance. If the Board are to continue, as we think they must continue, to be the central authority, charged with the supervision of the local administration of public assistance and responsible to Parliament for that administration, greater powers must be conferred upon them. At present their powers are unduly limited to supervision and restraint. These powers do not appear to us to be excessive; on the contrary, as we shall hereafter show, they might with advantage be strengthened. Moreover, in the interests of good administration, we think it very desirable that in future the Board should assume a more direct position of initiative and guidance in matters of principle. By this means the Board would be better able to educate local opinion in the best methods of administration, and thereby maintain a higher standard of efficiency. . . . To enable the Board to assume this position, we consider it essential that their *status* should be raised, and that the salaries of the members and chief officers should be adequate to the increased responsibility which we propose to place upon them.

These, then, are the lines on which the Majority Report propose to reconstitute Poor Law administration in Scotland.

To sum up, they recommend in connexion with the central authority that:

1. That the Local Government Board should assume a more direct position of initiative and guidance in matters of principle affecting the administration of the Poor Law, or, as we propose to call it, Public Assistance.
2. That the *status* of the Board should be raised, and that the salaries of the members and chief officers should be adequate to the increased responsibility which it is proposed to place upon them.
3. That the number of general superintendents of poor should be increased, or, preferably, that assistant superintendents should be appointed; that definite qualifications for the post of assistant should be prescribed and tested, as far possible, by examination; and that, in future, no person should be appointed general superintendent of poor who has not served for a probationary period as an assistant superintendent.

4. That the general superintendents should from time to time attend meetings of Public Assistance bodies and their committees.

5. That the Board's power to decide appeals against inadequate relief should be extended so as to enable them to determine the amount of relief that should be paid.

6. That the payment of all local taxation grants in aid of Public Assistance should be dependent on the fulfilment of conditions which would have as their object the securing of a higher standard of efficiency in administration. We are in favour of the "block-grant" system as being most suitable in this respect, and we think that the amount should be increased to some such sum as half the cost of relief.

7. That the Board's control over the appointment, qualification, and remuneration of officers engaged locally in the work of public assistance should be extended.

8. That as regards the provision of institutions the Board should have power:

(*a*) To insist on the erection or improvement of an institution.
(*b*) To require local bodies to combine when necessary.
(*c*) To authorize the compulsory purchase of land.
(*d*) To sanction loans.
(*e*) To check unnecessary and extravagant expenditure.
(*f*) To license the several parts of an institution for occupation by a given number of inmates.

9. That the Board should have power to unite small parishes in order to secure greater economy and efficiency in administration.

10. That the Board should be empowered to issue orders laying down the general principles on which public assistance should be administered; and to approve rules for the detailed regulation of the methods of assistance adopted in conformity with such principles.

11. That the auditors should be whole-time officers; that they should be civil servants; that persons appointed to the post of auditor should be required to possess definite qualifications, to be tested by examination or otherwise; and that the same rule should apply to the three countries as regards part of the cost of audit being borne by Imperial funds.

12. That the Board should be empowered to hold an "extraordinary" or special audit of the accounts of a local body whenever the circumstances seem to demand it.

13. That the annual report of the Board, dealing with public assistance, should be printed and presented to Parliament in a volume separate from the rest of the report of the Board.

Areas of Administration.

At present there are 874 parishes in Scotland, varying considerably in size, in population, and in valuation.

For the purpose of administration the Majority propose amalgamating the smaller parishes; this they consider would tend to greater efficiency, and would enable the authorities to obtain a higher class of official, specially trained, and able to devote his whole time to his work. As regards the larger burghs, they consider that the Poor Law area should be that of the burgh. The difficulty would be to define what size of burgh is appropriate for administration purposes; some burghs are so small that nothing would be gained by a general adoption of the burgh area as against that of the parish. In many cases the parish area is more extensive and more populous than that of the burgh which lies within it. The Majority, then, consider it would be expedient to draw a line between (*a*) those burghs which are large enough for the purposes and requirements of the administration of Poor Law or public assistance, and (*b*) those which are not.

They therefore recommend:

As regards burghs with a population of 7,000 and upwards:

(*a*) That the area of the burgh should be the administrative area for purposes of public assistance.

(*b*) That, according as may be determined by a special boundary commission, the landward or rural portion of parishes containing such burghs, or parts of such burghs, shown to be either

(I) Made into such separate parishes (the cases requiring such treatment being probably very few); or
(II) Added to the adjoining parish or parishes; or
(III) Added to the burgh or burghs to which the area of the burghal part of the parish has been assimilated.

(*c*) That power should be given to the burgh to combine with another burgh or burghs, or with a county, for the purpose of providing institutions for particular classes of poor persons, and that, where necessary, the Local Government Board should have power to compel a burgh thus to combine or to require such persons to be boarded in the institutions of another authority.

As regards counties (exclusive of burghs with a population of 7,000 and upwards):

(*a*) That the existing poorhouse combinations should be abolished, and that for the purpose of providing the necessary institutions the administrative area should be the area of the county.

(*b*) That power should be given to a county to combine with another county or counties, or with a burgh or burghs, for the purpose of providing institutions for particular classes of poor persons, and that, when necessary, the Local Government Board should have power to compel a county thus to combine, or to require such persons to be boarded in the institution of another authority.

(*c*) That for the purposes of outdoor relief the parish area should be retained, but that small parishes should be united, with a view to more efficient and economical administration.

(*d*) That the Local Government Board should be entrusted with compulsory power to unite small parishes for the administration of public assistance otherwise than in an institution.

(*e*) That in uniting small parishes the ultimate aim should be to assimilate the public assistance area with the area of the county district.

The Local Authorities.

At present Poor Law relief is administered by parish councils. The Majority recommend the formation of Public Assistance Authorities.

As regards burghs with a population of 7,000 and upwards:

That the authority charged with the administration of public assistance within the burgh should be a statutory committee of the town council, called the Burgh Public Assistance Authority, appointed by the town council, and composed, one half of town councillors and one half of persons of experience in the administration of public assistance or other cognate work. The authority should include two or more women. The Local Government Board should determine the number of members to be appointed in each case; one-third of the members should retire annually.

As regards counties exclusive of burghs with a population of 7,000 and upwards:

That there should be a county Public Assistance Authority to deal with questions of public assistance affecting the county as a whole, and particularly to provide and supervise the county institutions for the maintenance of the various classes of poor persons, or to combine with other Public Assistance Authorities for that purpose; the cost of providing and equipping these institutions to be a charge on the county, including burghs with a population of less than 7,000.

That the county Public Assistance Authority should be a statutory committee of the county council appointed by them, and composed one-half of county councillors and one-half of persons of experience in the administration of public assistance or other cognate work. The number of members should be determined by the Local Government Board; one-third of the members should retire annually. The authority should include two or more women.

That parish councils should be retained for purposes of public assistance in all landward districts and in burghs with a population of less than 7,000, the parish being subject to extension or readjustment as proposed elsewhere.

Officers of the Local Authority.

The Majority recommend, with regard to the appointment of officers:

That the inspector of poor should be designated "inspector of public assistance"; that he should be a whole-time officer, and, *ex officio*, clerk to the Public Assistance Authority or parish council as the case may be.

That, in addition to existing powers of dismissal, where a local body and the Local Government Board concur in the opinion that the retention of an inspector of public assistance is, on general grounds, detrimental to administration, the local body should have power to terminate his appointment after proper notice.

The other officers are appointed under the same statutory powers and hold office under the same conditions as the inspectors.

Qualifications for Relief.

The Majority recommend:

That disability to earn a livelihood should no longer be one of the qualifications for poor relief.

That any person should be eligible for public assistance who is "necessitous."

They describe the term "necessitous" as a subject for relief as a person who is,

for the time being, without material resources (1) directly available, and (2) appropriate for satisfying his physical needs, (*a*) whether actually existing, or (*b*) likely to arise immediately. By physical needs in this definition are meant such needs as must be satisfied (1) in order to maintain life, or (2) in order to obviate, mitigate, or remove causes endangering life, or likely to endanger life or impair health or bodily fitness for self support.

Indoor Relief.

The Majority recommend:

That general poorhouses should be abolished, and that institutional assistance should be given in separate institutions appropriate to the various classes for whom such assistance may be necessary.

That the treatment should, so far as possible, be curative and reformative, and that, in every institution, each case should be

periodically reconsidered by a responsible committee, in order to see whether the treatment is producing the desired result or should be changed.

Outdoor Relief.

The Majority of the Commissioners, after reviewing the evidence brought before them, report:

In our judgement, the Scottish system of outdoor relief suffers from lack of uniformity in the application of principles of administration; that, in spite of great improvements effected since 1845, the allowances granted to the outdoor poor are frequently inadequate to their needs; that the visitation and inspection of the outdoor poor is in some parishes perfunctory, and in the majority of parishes insufficient; that the object of the visit of inspection is often merely to ascertain the economic circumstances of the poor person and without any idea of friendly help or assistance; that the want of women inspectors to discharge the duty of visiting the female outdoor poor is apparent and serious; that a grant of outdoor relief is often made without due regard to surrounding conditions, and in practice frequently has the result of fostering dirt, disease, and immorality; that the outdoor allowances are frequently paid at too long intervals; that the system of paying the allowances at the offices of the parish council, or at a pay station, is objectionable; that there is a great lack of co-operation between the Poor Law and charitable workers in the treatment of poor persons who are in receipt of both outdoor relief and charity; that the practice of giving outdoor relief to supplement the earnings of poor persons who are unable to work for a complete subsistence has had little appreciable effect on the labour market; that it is neither expedient or practicable to abolish the power to grant outdoor relief in Scotland; and that, if the Poor Law authorities and their officers were imbued with a higher conception of their duty towards the outdoor poor, and were intent on its fulfilment, much improvement to the advantage of the poor persons themselves and to the benefit of the community at large might be effected in the administration of outdoor relief.

Accordingly, and to this end, the Majority submit the following recommendations:

(A) The principles on which outdoor relief, or, as we propose to call it, home assistance, should in future be administered, are as follows:

1. Home assistance should be given only after thorough inquiry, except in cases of sudden and urgent necessity.
2. When all sources of income are taken into account, the assistance, without being excessive, should be adequate to meet the needs of those to whom it is given.
3. The persons so assisted should be subject to frequent supervision, such supervision including in its purview the conditions, moral and sanitary, under which the recipient is living.
4. It should be a condition of home assistance that the recipients are living in decent, clean, and well-kept houses.
5. Every case of home assistance to widows should have special and individual attention.
6. Home assistance should not, except in special cases, be granted to any woman deserted by her husband during the first twelve months after desertion.
7. Home assistance should not, except in special cases, be granted to any woman with an illegitimate child.
8. Where home assistance takes the form of a money allowance, such allowance should be paid at the home of the poor person, and the interval between payments should be short.
9. There should be systematic co-operation between the burgh Public Assistance Authorities, the parish councils, and recognized voluntary aid committees in the care and treatment of cases of distress, such co-operation taking the form of (*a*) interchange of information, (*b*) division of cases for purposes of relief, and (c) visitation of all permanent or prolonged cases by voluntary agencies.

(B) For carrying out the above principles, the following steps should be taken:

1. The Local Government Board should be empowered to prescribe the conditions under which home assistance is to be administered.
2. The general superintendents of poor should periodically inspect cases in receipt of home assistance.
3. With a view to adequate local inquiry and supervision:
   - (I) The case paper system should be everywhere adopted.
   - (II) The number of assistant inspectors of poor should be increased.
   - (III) A certain proportion of the assistant inspectors should be women.
   - (IV) Voluntary agencies should be utilized as far as possible for the personal care and visitation of individual cases.
4. The practice of paying outdoor allowances at the offices of the parish council or at a pay station should be abolished.
5. With a view to securing that home assistance is given only to persons living under good moral and sanitary conditions, [full inquiry should be made].

Exemption from Payment of Rates.

Under the Poor Law Act, 1845 (Section 42), the parish council—the rating authority as regards parish rates—are empowered to exempt from the payment of rates, either wholly or partly, "any persons or class of persons on the ground of inability to pay." This practice obtains to a much greater extent than in England, and in many cases the privilege is abused, many persons being exempted who are in a position to pay.

The Majority Report recommends:

That, except as regards outdoor paupers, who obviously cannot pay rates, each application for exemption from payment of rates on the ground of poverty should be considered on its merits, after careful inquiry into the circumstances of the applicant, and dealt with by the authority empowered to grant the exemption.

The Aged.

The original principle of the Scottish Poor Law was to relieve those who, on account of age or infirmity, were partially or wholly disabled, so as to be incapable of working and earning for themselves a sufficient maintenance. The two Acts of 1574 and 1579 provided that, both in burghal and landward parishes, a roll of the aged poor and impotent persons who were either natives or had lived there for seven years, should be drawn up every year.

The Act of 1845 enabled parochial authorities, either singly or in combination, to erect poorhouses, if they saw fit, for the accommodation of, *inter alia*, "the aged and other friendless and impotent poor."

The Majority Report recommends:

1. That the aged poor, so far as they are unsuited for or cannot properly receive home assistance, should be accommodated in institutions specially set apart for them; and that they should be subdivided into classes, as far as practicable, with reference both to their physical condition and to their moral character.
2. That for the accommodation of the respectable aged poor in institutions the system of parish homes should be promoted and extended, both on the ground of increased happiness to the poor themselves and economy to the ratepayers; that such homes should be put upon a statutory footing, and be subject to systematic supervision and control by the Local Government Board.

As regards home assistance:

1. That care should be taken to see that the allowances are adequate, without placing the recipients in a better position than those of their class who do not receive assistance.
2. That the aged recipients of home assistance should be periodically visited; and that the services of voluntary visitors should be enlisted to supplement the work of the officers of the Public Assistance Authorities and parish councils.

As regards compulsory removal:

That, in certain cases, power of compulsory removal to and detention in an institution should be given to the Public Assistance Authorities and parish councils subject to suitable safeguards, which we shall afterwards define.

Children.

By the law of Scotland, no able-bodied man is entitled to relief for his children living in family with him. Girls reach the age of puberty at 12 and boys at 14, but whether they then become forisfamiliated or not depends on their ability to earn their own living.

The recommendations of the Majority Report regarding the care of children are as follows:

1. Whilst strongly approving the boarding-out system and advocating its extension as far as possible, we feel that, in all its developments, it requires very careful regulation by the Local Government Board, e.g.:
   - (*a*) The children should, as far as possible, be boarded with strangers rather than relatives.
   - (*b*) The children should not be boarded with paupers or in homes in which a lunatic is boarded.
   - (*c*) The suitability of the proposed foster parents to whom the children are to be entrusted, and the condition of the home and its environments, should be carefully inquired into by the Public Assistance Authority or parish council before any agreement is made to hand over the children.
   - (*d*) The home should be in the country rather than in a town district.
   - (*e*) Care should be taken not to board out too many children in one district or in one home.
   - (*f*) There should be supervision of boarded-out children, thorough and constant, both lay and medical.
2. It is essential that the Local Government Board should appoint one or more lady inspectors of boarded-out children.

3. Power should be obtained to board out children, when necessary or expedient, beyond the limits of Scotland, and such power might include provision for the emigration of suitable children to the colonies; the responsibility of the Public Assistance Authorities and parish councils to continue for a stated period thereafter.

4. Effective steps should be taken by the Local Government Board to secure that the maintenance of children in the general poorhouse be no longer recognized as suitable or legitimate treatment of them.

5. The Public Assistance Authorities shall provide small institutions or homes wholly separated and isolated from the poorhouses, to which all children hitherto kept in the poorhouse, except the infants and the sick, should be sent before being boarded out or otherwise dealt with.

6. Care should be taken that any child suffering from an ailment which renders it unfit to be removed from an institution, or requiring medical treatment, which would not, presumably, be provided by the parents outside, should not be discharged along with its parents, but should be retained until certified as fit for removal.

7. The Public Assistance Authorities and parish councils should have power to adopt children of undesirable parents, and, where necessary, to retain the supervision of such children up to the age of 21, parental responsibility and liability for maintenance being always most strictly enforced.

8. Public Assistance Authorities and parish councils should keep a systematic record of their boarded-out children, and should take steps to remain in touch with them for some years after they cease to be chargeable.

9. Voluntary agencies should be induced to co-operate in the after-care of children who have ceased to receive public assistance, and should report to the Public Assistance Authority or parish council, such reports being officially preserved.

10. Public Assistance Authorities and parish councils should, as far as possible, endeavour to co-operate with voluntary agencies which provide homes for boys when they first obtain employment or are learning a trade.

11. There should be closer supervision of the condition of the children of parents who are in receipt of outdoor relief; in order to secure that the housing conditions and surroundings are healthy and sanitary, the Public Assistance Authority or parish council should be in constant co-operation with the sanitary authority; and the Local Government Board should be empowered by refusal of grant or otherwise to enforce the observance of an administrative rule with regard to these matters.

12. Parents, and particularly widows, should receive friendly advice and assistance in starting their children in life.

13. The assistance of voluntary agencies should as far as possible be enlisted for the supervision and after-care of children in receipt of outdoor relief.

14. Medical supervision of all children in receipt of outdoor relief should be generally secured.

15. All voluntary charitable institutions receiving children for whom the Public Assistance Authorities or parish councils are responsible should be open to inspection by the officers of the Local Government Board, and should be officially certified.

16. Consideration should be given to the question whether all voluntary charitable institutions dealing with children should not be registered, and subject to the same supervision, and be required to co-operate with the public authority.

Unmarried Mothers.

Regarding the provision for the assistance to be given to unmarried mothers, the Majority Report recommends:

1. That institutional assistance only, save in cases of emergency, should be given to those about to be, or who have already become, mothers of illegitimate children, and that this rule should be rigidly enforced.

2. That a clear distinction should be drawn between the cases (1) of young women who apply for relief in respect of their first confinements, (2) of women who are of weak intellect, and (3) of women who repeatedly enter the poorhouse to be confined, and are presumably lost to a sense of shame.

3. That cases of fresh confinement should be dealt with in institutions apart from the poorhouse, preferably in charitable institutions; and that voluntary workers should watch over the mothers on their first return to the world.

4. That those mothers who can be certified as feeble-minded should be subject to complete control on the lines laid down by the Royal Commission on the Care and Control of the Feeble-Minded.

5. That the hardened woman who repeatedly becomes chargeable on account of illegitimate children should be liable to compulsory detention for such period and subject to such conditions as the court may direct.

6. That all cases of unmarried mothers, and particularly cases of first confinement, should receive the special care and attention of the women members of burgh Public Assistance Authorities, parish councils, and voluntary aid committees.

7. That a Departmental Committee should be appointed to inquire into the working of the present law dealing with the subject of recovery against the putative father of an illegitimate child.

The Able bodied and Unemployed.

Under the old Poor Law Acts there is a clear distinction drawn between the "impotent" and those able to work. The "impotent" were to be relieved; no relief was to be afforded to those able to work. A number of Acts, however, provided for the able-bodied being set to work, such enactments, all more or less penal in character, having as their object the suppression of vagrancy.

The Act of 1845 declared that an able-bodied man out of employment had no legal "right to demand relief" under the Poor Law. But while this "right" was thus denied, a discretionary power to "grant" relief was conferred on the parochial authorities by the Board of Supervision, as advised by the Lord Advocate. That this discretion was "unrestricted," and the board, unlike the English board, had no power to prescribe conditions under which such relief might be granted. Instances are frequent where the parochial boards were compelled to give relief to the unemployed.

Charitable funds have been at all times available for the relief of the able-bodied and the unemployed since 1845. Up to 1878, when the Board of Supervision took the matter in hand, they appear to have been distributed under no common rule. In 1878 the board issued a minute recommending a number of simple rules for the administration of benevolent funds for the unemployed.

The principles laid down in the minute were as follows:

Strict inquiry into applications, to be conducted as far as possible by the Poor Law officers: no assistance to beggars, or to persons on strike, or to persons in receipt of relief from Poor Law or from charity; no assistance without a labour test, which should take the form of work in the applicant's own, or in some other, occupation of which he is capable; if this could not be done, an "artificial test" to be adopted, such as stone breaking, sand crushing, wood splitting, oakum teasing, and other simple occupations; In applying a labour test the remunerative nature of the employment to be the last thing to be considered; No assistance to be given from the Fund in money, but solely in rations, coal, etc.: Where there was a family the rations to be given to them personally.

These rules seem to have worked satisfactorily. In all centres where the population is large there are various societies and associations whose aim is to deal with the able-bodied, and they are so recognized by the Poor Law and municipal authorities.

Municipal authorities have for many years done much for the public relief of distress due to unemployment. These funds are generally managed by a committee of the town council. Funds are generally taken out of the common good fund, and sometimes out of the burgh rates. Relief works of various kinds are provided, and supervised by the municipal authority.

The granting of such assistance to workmen does not disqualify them under the Act as it does in England.

(To be continued.)

LITERARY NOTES.

THE abstract of an address recently delivered by Sir Henry Morris to the Middlesex Hospital Medical Society, which appeared in the JOURNAL of November 27th, contains the following sentence: "Further, there was the reply to the Apostles about the grain of mustard seed and the sycamore tree, when they asked, 'Increase our faith.'" The word "sycamore" should have been printed "*sycamine*." Sir Henry Morris informs us that sycamine is the black mulberry of Palestine, and is sometimes believed to be identical with sycomore—a species of fig—an evergreen of great size, from which the Egyptians made and still make household furniture. Sycamore is a species of maple, which has no connexion with the sycamine referred to in the New Testament. It is mentioned once only by St. Luke as συκάμινος. In A. Kyriades's *Modern Greek-English Dictionary* (Williams and Norgate, 1909) we find the word συκαμινέα translated as sycamine tree.

The first session of the Seventeenth International Congress of Americanists will be held in Buenos Aires, Argentine Republic, from May 16th to 21st, 1910. A second session will take place in Mexico in September of the same year. A Commission of Organization has been formed, the President of which is Dr. José Nicolas Matienzo, Dean of the Faculty of Philosophy and Letters in the National University. Communications, which may be either oral or written, may be made in English, French, German, Italian, Portuguese, or Spanish. The conference will deal with questions relating to the ethnology,

archaeology, and history of the New World, and a detailed programme will be published before the end of the present year. For further information application should be made to the General Secretary of the Committee of Organization, Dr. Lehmann-Nitsche, Calle Viamonte 430, Buenos Aires.

Old books professing to teach people how to behave properly in Society afford many quaint glimpses into the manners and customs of the past, and the following advice to doctors throws an interesting sidelight on mediaeval treatment and the sort of bedside manner then required of a medical man. The lines have been taken from Thomasin von Zirclaria's *The Italian Guest; or, How the Knight of Winsbeke taught his son, and the Lady of Winsbeke her daughter*, a treatise on manners and good breeding, written for Germans and in German by an Italian in the early days of the thirteenth century. The verse quoted below is headed simply "Medical Practice," and appears to contain the whole duty of the physician towards his patient as understood by the author and his contemporaries:

Ein arzât der wol erzen kan,
Der erzent dicke einn siechen man
Mit durst, mit hunger und mit prant.
Er bint in ûf zwo einer want,
Er snîdet und stichet in vil hart.
Eim andern rouft er sînem bart
Und sîn hâr, wan er wil
Daz er niht enslâf ze vil.

This is rendered into English by Mr. Eugene Oswald in his *Account of the Italian Guest . . . the German Cato, and Tannhaeuser's Courtly Breeding* (p. 134):

A physician who can cure well,
He cures vigorously a sick man
With thirst, with hunger and with burning.
He ties him up against a wall,
He cuts and pricks him a very great deal.
He tears another's beard
And hair when he desires
Him not to sleep too much.

Apart from the odd idea of a bedside manner here revealed, the treatment of the doctor seems somewhat strenuous to us in these degenerate days. Even the suffragettes who adopt the policy of the hunger strike, and who tie or chain themselves to railings and statues, have not yet, we believe, tried the actual cautery on themselves. Nor, for reasons for which brutal man cannot be held accountable, do they tear their beards. But they may sometimes have avenged themselves for the injustice of Nature by pulling policemen's whiskers.

The history of Tyburn might almost be regarded as a summary of the history of England. This may sound exaggerated, but the reader of Mr. Alfred Marks's most interesting and instructive book, *Tyburn Tree: its History and Annals* (published by Brown, Langham and Co.), realizes its truth with something of a shock as he sees how closely the story of the public gallows is interwoven with the story of the English nation, and how, owing to the ferocity of English laws, Tyburn Tree has played a prominent part in almost every important event in the history of Great Britain. Mercy and humanity were not the distinguishing characteristics of the "good old days"; the scaffold was the inevitable end of all who were unfortunate enough to come into conflict with the State; and therefore we find Tyburn figuring in every episode of English history from the Middle Ages down to the Jacobite rising of '45. Mr. Marks has given a full account of "the chief of English Aceldamas" throughout the 600 years of its active existence, and he has managed to invest the hideous story with interest and even romance. According to him, Tyburn was the place of public execution from the middle of the twelfth century onwards. The actual site of the gallows was for long uncertain, but now there can be no doubt that the triple tree stood at the corner of Edgware Road, not far from the Marble Arch and on the spot afterwards occupied by the toll-house of Tyburn turnpike. On this spot died some 50,000 people—men, women, and even children, of every rank, profession, and creed, and for every sort of crime. Here died Wallace, the first to suffer the full penalty for high treason; Mortimer, the lover of Edward II's queen; the impostor Perkin Warbeck; Catholic priests and reforming ministers, Cavaliers and Roundheads, gentlemen of the road like the famous Claude Duval, and starving men who had stolen a few pence, political prisoners and old women suspected of witchcraft, together with a nameless crowd of thieves, murderers, forgers, and coiners. It was at Tyburn that the dead bodies of Cromwell, Ireton, and Bradshaw were hung in chains to celebrate the return of the Stuarts, and at the same place less than a hundred years later the Jacobite prisoners paid the price of their loyalty with their lives. The last execution at Tyburn took place on November 7th, 1783. The gallows were then transferred to Newgate, amidst general disapproval, for this innovation involved the suppression of one of the principal sights of London, the procession of the condemned prisoners from the prison to the scaffold. Even the humane Samuel Johnson objected to the change, though the scenes at public executions were a disgrace to a civilized community, and what was intended originally to terrify the spectators from crime had become a pretext for hideous orgies of drunkenness and disorder. The "drop," or modern method of hanging which kills immediately by dislocating the neck, had been introduced about twenty years previously. Walpole mentions it as a novel feature in the execution of the mad Earl Ferrers in 1760. Hitherto death had been caused by strangulation, which was a lengthy process; and Mr. Marks seems to think that the "drop" was not adopted from humanitarian motives, but because it meant certain death. The old method of hanging offered the condemned man a loophole of escape if his friends were able to cut down the body as soon as possible after the execution, and there had been so many cases in which the prisoner left for dead upon the scaffold had been restored to life, that towards the middle of the eighteenth century there seemed to be urgent need for "a means of bringing to naught these ingenious attempts to rob the State of its due." Cases of resuscitation from hanging are recorded from time to time in the history of Tyburn. The earliest and most remarkable of all took place in 1264, during the reign of Henry III when Ivetta de Balsham was hanged at 3 o'clock one afternoon, and was taken down alive at sunrise the following morning. It is a relief to learn that the poor woman was pardoned after her twelve hours' agony. Later, these revivals became more frequent, and were, in fact, often connived at by the hangman himself. The famous highwayman, Jack Sheppard, when all other means of escape failed, hoped to elude justice by being cut down from the gallows soon after execution, as did also Johnson's friend, Dr. Dodd. In both cases the plan failed. In the latter,

> The body was conveyed to the house of an undertaker in Goodge Street, where a hot bath was in readiness. Under the direction of Pott, a celebrated surgeon of the day, every effort was made to restore animation, but in vain; the crowd was so enormous that there had been great delay in the transport of the body, and this was fatal.

Others, however, were more fortunate than these unhappy men. A woman, called Anne Greene, executed at Oxford in 1650, hung

> by the neck for the space of almost half an houre, some of her friends in the meantime thumping her on the breast, others hanging with all their weight upon her legs, sometimes lifting her up, and then pulling her doune again with a sudden jerk, thereby the sooner to dispatch her out of her pain; insomuch that the Under-sheriff fearing lest thereby they should break the rope forbad them to do so any longer.

The corpse showed signs of life when taken to the dissecting-room, whereupon an over-anxious bystander promptly "stamped several times on her breast and stomach with all the force he could"! Nevertheless, the unfortunate woman was rescued by the Professor of Anatomy, Dr. (afterwards Sir William) Petty, and another physician, who bled her and put her to bed with another woman. In a couple of hours she was able to speak, got up four or five days later, and in a month's time was well enough to return home, "taking her coffin with her." This incident is recorded in Lord Edmond Fitzmaurice's *Life of Sir William Petty*, where it is said that Anne Greene lived to marry and have children. Another woman, Margaret Dickenson, who was hanged at Edinburgh in 1728, horrified her funeral cortège by sitting up in her coffin. Luckily for her, one man had the presence of mind to open a vein; she was put to bed, and returned home on foot the following day. The case of John Smith is interesting inasmuch as we have his own account of his sensations on returning to life. He was hanged for burglary at Tyburn in 1705,

and after he had hung about seven minutes a reprieve came, so that he was cutt down, and immediately lett blood and put into a warm bed, which, with other applications, brought him to himself again with much adoe.

On his recovery he said that

when first turned off he felt excessive pain, but that it almost immediately ceased. The last circumstance he recollected was like an irregular and glimmering light before his eyes; the pain he felt in hanging was infinitely surpassed when his blood was recovering its normal course of circulation.

There is a certain pathos in the account of another sufferer, hanged at Tyburn in 1740, who recollected nothing of his experiences, but, being brought back to life on the dissecting-table at Surgeons' Hall, said that he had dreamed of "Paradise, where an Angel told him his sins were forgiven." The pardon of his earthly judges took the form of transportation for life on his recovery. It is natural that the doctors should have taken a keen interest in these and similar cases, and during the first half of the eighteenth century the Faculty busied itself in studying the question of resuscitation. A surgeon called Chovet,

having by frequent experiments on Dogs, discovered that opening the Windpipe, would prevent the fatal consequences of the halter, undertook Mr. Gordon, and made an Incision in his Windpipe: the Effect of which was, that when Gordon stopt his Mouth, Nostrils, and Ears for some Time, Air enough came thro' the Cavity to continue Life. When he was hanged he was perceived to be alive after all the rest were dead: and when he had hung 3 quarters of an Hour, being carried to a House in Tyburn Road, he opened his Mouth several Times and groaned, and a vein being open'd he bled freely. 'Twas thought, if he had been cut down 5 minutes sooner, he might have recover'd.

A more successful experiment was made in 1767 by a Cork surgeon upon a man executed in that city. The body had hung for twenty-eight minutes, when it was cut down and carried by the mob

to a place appointed, where he was, after five or six hours, actually recovered by a surgeon who made the incision in his windpipe called bronchotomy. The poor fellow had since received his pardon, and a genteel collection has been made for him.

The story of Tyburn is, for the most part, one long list of sickening barbarities. The only bright spot amidst the gloom which enshrouds it is the heroic courage shown by the martyrs, who could pray for the butchers who were mangling them, and by men such as Dr. Cameron, the last of the Jacobite prisoners, who "met death, not so much with fortitude, which implies, in a way, an effort, as with perfect equanimity." Nor do the horrors of Tyburn diminish with the march of progress. It is a curious and dreadful fact that the further the nation advanced in civilization, the more barbarous became its laws, till the eighteenth century surpassed the Dark Ages in cruelty, and the age which produced John Howard, the philanthropist, witnessed the offences punishable by death to over 200 in number, saw a woman hanged for trying to steal a small piece of muslin in order to obtain money for her starving babes, and a child of 14 sentenced to be burnt for hiding, at her master's bidding, a few whitewashed farthings. Well might the tender-hearted Romilly agitate for the reform of our penal code; and it is significant of the temper of the age and its utter indifference to human suffering that his opponents included not only rival politicians, but archbishops and bishops, men whose very profession should have inspired them with compassion. Mr. Marks's own words form a fitting conclusion:

"Let us not forget the thousands of martyrs . . . ***** . . . to ferocious laws, not seldom put in force against the innocent, the martyrs to cruel injustice, to iniquitous social conditions. Thousands have had the life choked out of them at Tyburn on whom pity might well have dropped a pardoning tear: to whom compassion might well have stretched out a helping hand." And again: "The story of Tyburn is one of the strangest, surely one also of the saddest, in the history of the people."

In *La Clinique* of November 19th Dr. G. Cornu quotes the following account of a radical cure of hernia about 1740. He takes it from the book of Arnaud, whom he describes as the chief authority on hernia of the time, and who himself took it from the Ottoman history of Demetrius of Cantimir, Prince of Moldavia. That author says:

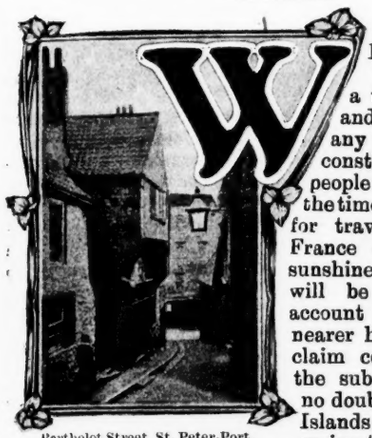
The Albanians undertake the cure of ruptures in all sorts of cases, whatever be the age of the patient. Their method is rough but nevertheless successful. During my stay at Constantinople I made proof of it on the person of my secretary, a man advanced in years whom I had treated for that condition in my palace. An agreement having been made as to the price of the cure, they tied the patient with bands from the chest to the feet on a large plank. Then they made an incision in the lower part of the belly with a sort of razor or bistoury. The hypodermium (peritoneum) having been opened, they drew out the internal substance under the skin, about as much as would cover a man's hand, and pushed up in the place of the space thus left the intestine which had descended into the scrotum. Then the hypodermium was stitched with coarse thread, which was held in place by a knot to keep it from slipping, and the edges of the wound which hung down on both sides were cut with the same razor. The wound was rubbed with lard and cauterized with a red hot iron. Before putting on the apparatus they raised the legs of the patient, who was more dead than alive, somewhat high, and let fall into the wound the white of nine fresh eggs. If within an hour or two this liquid begins to "work" and bubble is a certain sign of cure. On the other hand, they draw an unfavourable augury if after three hours nothing of the kind takes place. They look upon this as the effect of the age or weakness of the patient, which puts him beyond the reach of the virtue of the remedy, and indeed it seldom happens that more than one or two out of a hundred on which they operate die. After two or three days the infusion of white of egg is repeated. During all that time the patient is kept stretched on his back without giving any sign of life or feeling. The doctors did not allow him to take anything, saying that it was enough to wet his tongue frequently with a drop of water. On the fourth day they placed the patient bound as he was on the floor, and forthwith he came to himself, and with a weak voice complained of the pain he felt. They gave him a spoonful or two of tepid water to sustain him, and during the three following days they allowed him broths, and they specially enjoined that his stomach should not be loaded, and that he should not be given meat. On the seventh day he was unbound and placed more comfortably in a bed, but for fear lest he should move or turn on his side, two of the doctors kept him always in sight, and every day the infusion already described was renewed. From the ninth to the twelfth day the quantity of white of egg was reduced to six, and as soon as they were applied to the wound one could see a bubbling more considerable than before. On the fifteenth day the white of one egg could scarcely be introduced. Nevertheless, the infusion was not stopped as long as there was space to introduce a certain quantity and the least bubbling was perceived. This sign having ceased to manifest itself, they covered the wound with a plaster made of pitch, oil, and other ingredients. The patient was then allowed to move his leg and to lie on his side. Every morning before the patient took any nourishment the doctors pulled on the end of the thread with which the wound had been stitched, in order to see if it was time to leave it without ligature. This depends on the strength of the patient. In some cases forty, in other thirty, days are sufficient. There are some even in which the thread can be taken away on the twentieth day. Then with the help of a second plaster the cure is complete.

"There," says the Prince of Moldavia—and the modern reader will doubtless agree with him—"is a very surprising operation of which I have been an eye witness." Those who read the accounts of the tortures of heretics and criminals in olden times might find it difficult to choose whether they would have preferred to be done to death by the surgeon or the executioner.

Some time ago a proposal to establish an official medical journal for the Canadian Medical Association was placed in the hands of a standing committee, known as the Finance Committee, under the chairmanship of Dr. John T. Fotheringham of Toronto, formerly one of the editors of the *Canada Lancet*, with instructions to establish a journal as soon as financial conditions warranted such an undertaking. With this end in view (says the *Canadian Practitioner and Review*), it was deemed advisable to seek incorporation. A committee, with Dr. Shillington of Ottawa as chairman, was appointed for the purpose, and, as a result of its work, the Association was incorporated by Act of Parliament last session. The next step was to increase the annual subscription from 2 to 5 dollars. In these circumstances the fact that the attendance this year was the largest in the history of the Association was very satisfactory to the Finance Committee. It was clearly evident that nearly all the members at the meeting held in Winnipeg wished to see a journal established as soon as possible. Canada, adds our contemporary, is growing in many ways and in various directions. The members wish the Association to become bigger and broader in every sense. They wish to discuss from year to year subjects of national importance, and they want an official organ. It is stated that the official publication will be quite different from the present medical journals, and will not enter into competition with them.

THE CHANNEL ISLANDS,

ESPECIALLY IN WINTER AND SPRING.



Berthelot Street, St. Peter-Port, Guernsey.

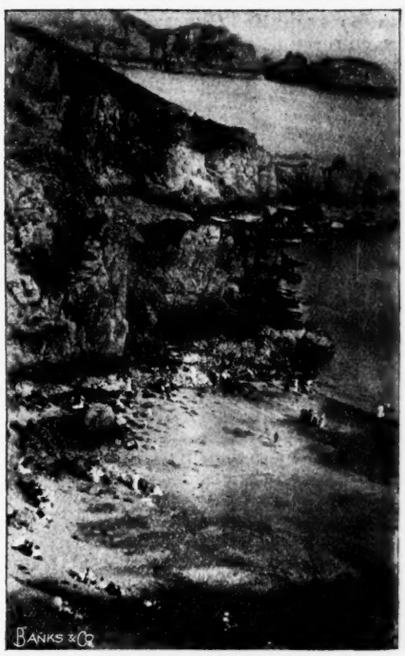
WINTER in nearly all parts of England is a trying season to all and singular who have any weak point in their constitution, and many people who can ill afford the time and money required for travelling to Southern France or Italy in search of sunshine and milder winters will be interested in an account of a substitute nearer home. We do not claim complete equality for the substitute, but there is no doubt that the Channel Islands offer in winter and spring to the inhabitants of the major part of Great Britain a considerable change for the better. The length of the journey from London to Guernsey, the nearest island, is about ten hours in winter, eight and a half hours by the daylight service in summer. The open-sea crossing is about four hours from either Weymouth or Southampton, which, after all, is only half an hour longer than that between Newhaven and Dieppe. Communication with Sark and Alderney is by small interinsular steamers running only from Guernsey. The English mail boats run on to Jersey from Guernsey every morning, and in summer every evening also. Small steamers ply regularly from Plymouth, London, and Bristol; as well as from both Guernsey and Jersey direct to Cherbourg, Granville, St. Malo, and other ports in Normandy and Brittany.

The main islands of the group are Jersey (population 55,000), Guernsey (45,000), Alderney (2,000), and Sark (600). Guernsey, the first port of call, lies thirty miles nearer England than Jersey, a point of importance to bad sailors, for the thirty miles between Guernsey and Jersey are often the worst bit of the whole crossing. This article is not a guide-book, nor will it compare, except in the most general way, the attractions of the different islands. The largest of them is not so large that one can ever get more than three miles from the sea, but the visitor is not tied in them, as in many English seaside places, to a mile or two of beach. The whole coastline of the islands is within walking reach, and the variety is astonishing. Of them all the sea is the main feature. The bold cliffs and bays of Guernsey, the crags and caves of Sark, the lovely bays and sandy stretches of Jersey, and the rocks of Alderney, are what chiefly dwell in memory.

English is universally spoken. In the country districts of all the islands the old Norman *patois* lingers. It is not French; it is the unaltered Norman language of 500 years ago. Modern French has driven it out of Normandy itself.

Accommodation is easy to find in Jersey and Guernsey. Hotel prices run from 6s. 6d. to 8s. 6d. a day in the winter season for visitors who stay two or three weeks. Boarding house charges are from 5s. or 6s. a day upwards. Apartments are let at about 10s. a room. In both islands the Secretaries of the Advertising Committees supply information on all such questions. In Alderney accommodation is even cheaper; the island is bare, bleak, and bracing. Sark has become the happy playground of regular visitors who come to the same houses year after year. Accommodation in it is scarce, and it is far too lonely and difficult of access in winter to be recommended. House rents in the towns of St. Heliers, Jersey, and St. Peter-Port, Guernsey, are closely up to English averages, but in the country bargains can often be got. Servants are hard to find, however, outside of the towns. Provisions are imported from England, and are sold at English prices. Wine and spirits, though not as cheap as they used to be, are still one-third lower in price than in England. Tobacco is less than half English prices; a really good after-dinner cigar costs 2d.!

Those who settle in the islands pay no taxes for the first three years of residence; after that they pay the same as others. Local taxation is higher than it ought to be. The absurd system of levying it on capital and personal property allows too many to escape altogether. In Jersey and Guernsey municipal sanitation is fairly good. Modern bathrooms, etc., as in the country parts of England, are scarce except in newer houses. Jersey's water supply is good and ample; that of Guernsey good but not ample. It is, indeed, a burning question (if water

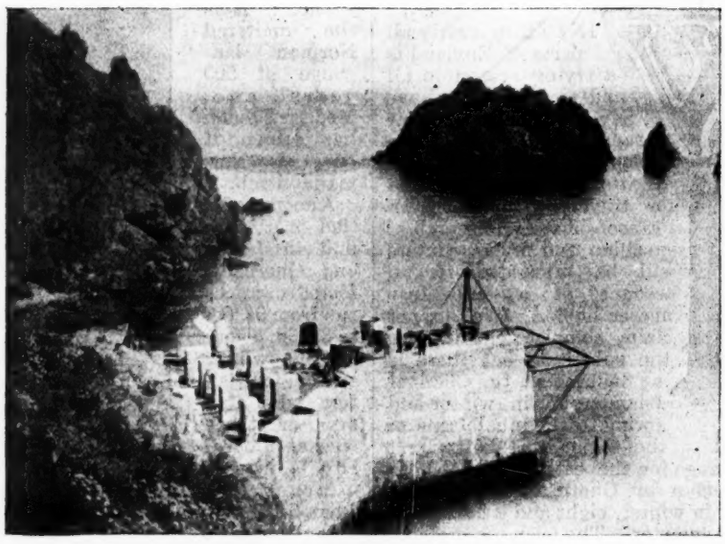


Saints' Bay, Guernsey.

Harbour, St. Peter-Port, Guernsey.

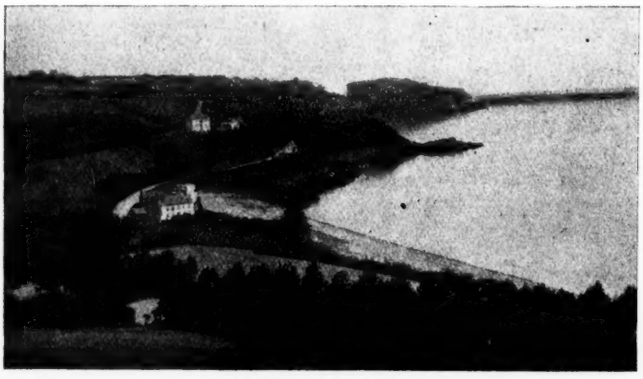
Rocquaine Bay, Guernsey.

can be such) in Guernsey at present, and extension schemes are now before the States, the local Parliament. For the Channel Islands have their own Parliaments, their own laws, their own system of universal service. The Channel Islander firmly believes that his native land is worth defending, and every male resident between 18 and 40 is liable to serve a short training every year. The establishments are kept at a fixed figure, and the vacancies are filled by ballot. But the service is so popular that, in Guernsey at any rate, there have been for many years at least three volunteers for each vacancy, and the ballot has been used only to decide who shall be the men unlucky enough not to serve. The service is as popular with the numerous Nonconformist population as with the others; and its success might well be an object lesson to their unpatriotic brethren in England. Royalty is represented by a Lieutenant-Governor, whose levées are informal and well-attended functions. The Bailiff is the Chief Civil Magistrate and President of the local Parliament. The procedure of the States and Royal Courts shows many interesting relics of the old feudal days, though it is perhaps not ideally responsive to the push of modern progressive notions.

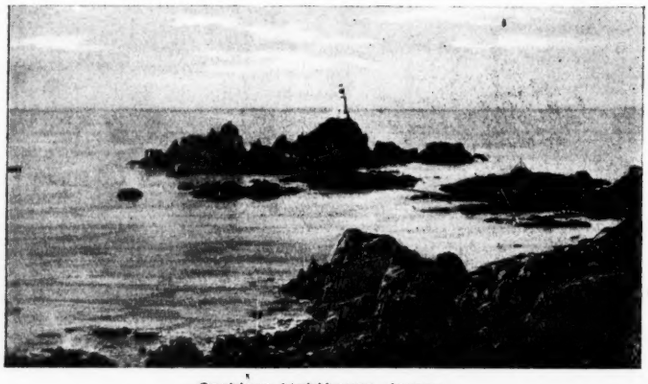


New South Quay, Alderney.

Socially, therefore, the Channel Islands offer to visitors an attractive blend of English and Continental customs. The Government is Old Norman; the habits of society, English; the religion, Sabbatarian to an extreme. The laws are printed in French, but have usually to be translated for popular use. Society is unostentatious; there are few rich residents, and entertaining is on a modest scale. Clubs, theatres, and amusements are run to suit moderate incomes. Education, for both boys and girls, is cheap and very good. There are facilities for almost every outdoor sport — tennis, cricket, fishing, yachting, and croquet. Golf in both Jersey and Guernsey is really good: the Vardons, the Gaudins, Ray, and Renouf are all Jersey men. Lending and reference libraries of exceptional merit exist; and very good theatre companies cross regularly. The local amateur dramatic talent in Guernsey is astonishingly good.



St. Catherine's Bay, Jersey.



Corbière Lighthouse, Jersey.

Guernsey and Jersey now restrict their medical practice to graduates and licentiates of the United Kingdom. Both islands are well stocked with medical men. In Guernsey the Association is very strong, only three out of some twenty-six practitioners standing out. In Jersey the old-established Jersey Medical Society divides the allegiance of the profession with the British Medical Association, but of late the latter seems to be gaining ground.

Climate in Winter and Spring.

It is the rarest thing for any really cold weather to occur in the Channel Islands before the end of December. November is generally a month of fairly still days with more or less blue sky; November fogs are unknown. October is the wettest month of the year. Even in December it is quite usual to be able to sit in the sun out of doors right up till Christmas Day. A snowstorm is a rarity, and a white landscape a thing to be remembered. A cold snap of three to five days corresponds to one of ten to fifteen days in England, and its temperature ranges from 30° to 40° F. against the English range of 22° to 34° F. The averages of sixty-three years show that in Guernsey the thermometer falls below the freezing-point on only two days in each year, in Jersey on three days in each year, the difference being due to Jersey lying nearer to the French coast. Twenty years' comparison of the first twelve weeks of the year gives these temperatures:

	Between
Guernsey ...	46° and 42°
English South Coast towns	43° ,, 39°
Greenwich ...	42° ,, 37°

While the winters are warmer than the neighbouring parts of France and England, the sea breezes passing over the islands keep the nights deliciously cool even in the hottest spells in summer. The sea around the Channel Islands is several degrees warmer in winter than on the south coast of England. Bathing begins earlier and is carried on later. There exist no regulations as to bathing outside of the towns; in the country bays mixed bathing is the rule.

The following tables are taken from records supplied by Dr. H. Draper Bishop, the M.O.H of Guernsey. We have been unable to incorporate Jersey figures, as our application

to the M.O.H. of Jersey unfortunately coincided with his annual holiday, and his reply arrived too late. The differences, however, are quite unimportant.

I.—*Mean Shade Temperature (66 Years' Average).*

Jan. ...	43.2	April ...	47.3	July ...	60.0	Oct. ...	53.4
Feb. ...	43.6	May ...	51.5	Aug. ...	60.2	Nov. ...	48.3
March.	43.8	June ...	56.1	Sept. ..	58.3	Dec. ...	44.9

Mean for first quarter 43.3
" second quarter 51.6
" third quarter 59.5
" fourth quarter 48.8

II.—*Daily Range (66 Years).*

Jan. ...	7.1	April ...	9.7	July ...	11.7	Oct. ...	8.8
Feb. ...	6.8	May ...	10.7	Aug. ...	10.9	Nov. ...	6.6
March.	8.8	June ...	11.1	Sept. ..	9.4	Dec. ...	7.5

Mean for the whole year 9.1

III.—*Rainfall.*

Jan. ...	3.76	April ...	2.34	July ...	2.14	Oct. ...	4.85
Feb. ...	2.62	May ...	2.13	Aug. ...	2.42	Nov. ...	4.39
March.	2.50	June ...	2.0	Sept. ..	3.07	Dec. ...	4.10

Average for 66 years ... ... 36.32 in.

This corresponds to the West Central Division of England. The next table shows how much of this total rainfall occurs during the night, so that it interferes but little with sunshine.

IV.—*Sunshine (15 Years' Averages).*

		1909.			1909.
January ...	57.7	62.0	July ...	277.6	227.5
February	82.7	115.8	August ...	243.5	272.4
March ...	147.8	115.5	September	187.9	171.5
April ...	194.0	218.0	October ...	116.2	100.4
May ...	244.4	339.3	November	70.1	—
June ...	249.0	231.7	December	45.6	—

Average of 15 years ... ... 1,916 hours.
Highest on record, 1899 ... ... 2,214 "
Lowest on record, 1894 ... ... 1,724 "
1909 to November 20th ... ... 1,917 "

TABLE V.—*Prevailing Winds: 1908 Only.*

	S.	S.W.	W.	N.W.	N.	N.E.	E.	S.E.	Calm.	
Days...	45	57	66	55	25	42	4	46	26	= 366

TABLE VI.—*Incidence of Coldest Winds During Coldest Months.*

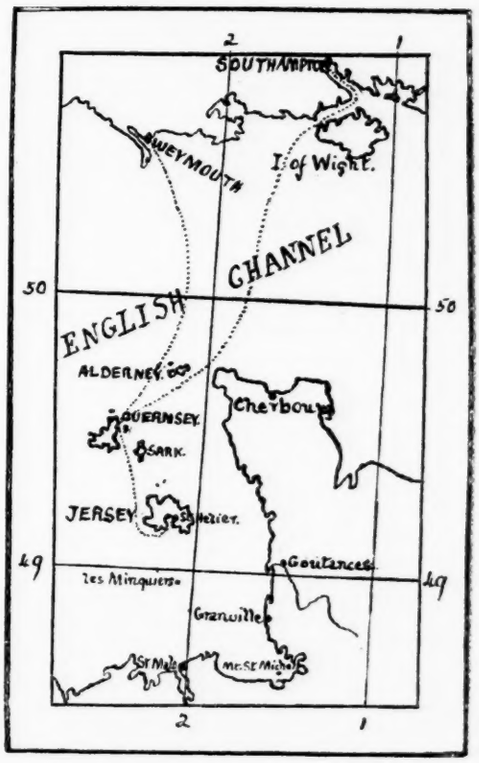
1908.	N.	N.E.	E.
January	1.5	6.0	1.0
February	3.5	0.0	0.0
March	1.5	3.0	0.0
April	4.5	5.5	0.0
October	0.5	3.0	1.5
November	1.5	4.5	2.0
December	1.5	0.5	0.0

HEALTH STATISTICS.

Out of 591 deaths in Guernsey in 1908, no less than 223 were those of persons 66 years of age and over. The following table shows the death-rates of Guernsey and Jersey last year:

	Guernsey.	Jersey.
1908 death-rate	13.3	15.4
" " (town)	13.0	17.6
" " (country)...	13.9	—

From the equable nature of the climate, and especially from the sunshine, tuberculous, renal, and bronchitic cases do well in the islands, which also offer advantages to that large class of neurasthenics who seek a suitable climate wherein to recuperate exhausted energies. Infectious diseases assume a mild type; influenza is certainly less of a scourge than in England. Vaccination is universal, there being no conscience clause. Enteric fever is rare in Guernsey—about 8 cases a year for several years, and several of those imported from France or England—but in Jersey its incidence is considerably higher. The difference is due partly to Jersey's greater communication with France, but partly also to Guernsey possessing a modern and ideally-equipped isolation hospital. This reproach will, however, soon be removed from Jersey. Disinfection of rooms that have been occupied by phthisical patients is compulsory by law.



Milk.

The Channel Islands breed of cattle—Jerseys, Guernseys, and Alderneys—is distinct from any other in the world. It is carefully kept pure from mixture with other strains, no live cattle being allowed to land except for slaughter. In Jersey cattle tuberculosis is unknown; in Guernsey it was also until a well-known herd came back infected from an English cattle show. The drastic measures adopted have, it is believed, stamped out the disease. At any rate, out of the last 639 animals exported to America only 3 reacted to the tuberculin test. The milk yielded by the Channel Islands cows is the richest in the world. The average analyses of 63 samples tested in Jersey in 1908 were:

Butter fat	5.2 per cent.
Other milk solids ...	9.0 "
Total milk solids	14.2 "

The value of a milk so rich in fat and solids and so free from suspicion of tubercle is self-evident.

The Advantages of the Climate.

Finally, let us say that probably no better climate exists in the world for children and for old people, the equableness of it and the mildness of the winter suiting equally well the two extremes of life. We hope we have avoided the reproach of excessive praise. The sea voyage—good though the boats are—the wind, the confined area of a small

island; these are definite disadvantages. But there must be something to say for a climate, only 80 miles from England, where the sun shines 1,916 hours every year, where magnolias and Mediterranean heaths bloom in the open air, where the shrubberies are white and red with glorious camellias in January and February, and where people border their garden paths with dracaena palms, instead of with laurels and rhododendrons.

Nova et Vetera.

PARASITOLOGY AMONGST THE ANCIENTS.

Readers of classical literature are familiar with the Greek word οἶστρος, which denotes a biting insect and is generally translated "gad-fly," though it is also used to designate a goad or spur, and, more metaphorically, is a synonym for a sharp, stabbing paroxysm of grief, pain, and other violent emotions or acute sensation. M. Moulé, in a very interesting article,[1] has collected and discussed some of the references in the old writers to the insect known by this name. It is commonly mentioned as a parasite which attacks cattle, and one of the earliest allusions to it is to be found in Homer's *Odyssey*, Book xxii, line 300, in the vivid scene where the returned Odysseus slaughters Penelope's suitors. At the sight of the revengeful hero armed with his bow, the terrified courtiers "stampede like a herd of cattle tormented in the spring-time, when the days are long, by a multi-coloured gad-fly." Aeschylus, also, in two of his tragedies alludes to the οἶστρος and the μύωψ, terms which he apparently considers synonymous. In the Prometheus Vinctus frequent mention is made of the persecution by a gad-fly of the maiden Io, who had been metamorphosed by Zeus into a cow; and in the Suppliants the chorus relate of the transformed Io that the goddess Hera "inflicted upon her the biting fly (μύωψ) which renders cattle furious and is termed 'οἶστρος' by the dwellers near the Nile." Sophocles, again, refers in the Electra to ancient Argos as "consecrated to the gad-fly bitten daughter of Inacus."

Aristotle, who approaches the subject in a scientific spirit, though his notions of parasitology naturally seem crude and confused to the modern scientist, says that "some animals in small number live at first in the water, but afterwards change their shape in order to live in the open; such is the gnat (ἔμπις) or river fly, which gives rise to the gad-fly (οἶστρος)." He made the additional observation that gad-flies (οἶστροι) and similar large flies (μύωπες) pierce the skin of both man and beasts and draw blood, and he regarded their stinging apparatus as comparable to the trunk of an elephant. M. Moulé also cites many passages from later Greek literature in which allusion is made to the infuriating effect of the gad-fly upon cattle.

Various opinions have been offered as to the identification of the insect which the Greeks called οἶστρος. The Romans called it *asilus*, as we know from Virgil. In his *Georgics*, Book III, line 147, he says of this insect, which frequents the forests of Alburnus:

> Cui nomen asilo
> Romanum est, oestrom Graii vertere vocantes:
> Asper, acerba sonans: quo tota exterrita sylvis
> Diffugiunt armenta. . . .

This statement is confirmed by Seneca, who writes: "Hunc, quem Graeci *oestron* vocant, pecora peragentem et totis saltibus dissipantem, asilum nostri vocabant." But in modern times *tabanus* has been substituted for *asilus* as the correct translation of οἶστρος. This more recent designation for the Greek "gad-fly" is probably correct, though in the absence of any precise description of zoological characteristics it is difficult to speak with certainty. It is, however, known that the insect in question was two-winged, that it was large, a powerful blood-sucker, capable of piercing the skin of both man and beast, and that it was especially obnoxious as a pest to cattle.

These facts, M. Moulé remarks, enable us to approximate to its scientific classification. The *Asilidae* may be excluded, notwithstanding the old Roman usage of the word, *asilus*, because the *Asilidae* usually attack other insects and it is not proved that they bite cattle. Amongst the blood-sucking insects which bite quadrupeds, M. Moulé brings forward for consideration the *Hippoboscidae*, *Glossinae*, *Pangoniae*, *Haematopotae*, *Chrysops*, and the gad-flies. He at once excludes the *Pangoniae* and *Glossinae* as being exotic, although he observes that *Glossina morsitans*, the tsetse-fly, closely corresponds in its characteristics to the Greek and Latin descriptions of the οἶστρος. The *Hippoboscidae* may also be left out of account, as they rarely attack quadrupeds other than horses.

There are thus left three types to select from, all belonging the family of *Tabanidae*, and possessing closely-allied characters—*Haematopota*, *Chrysops*, and *Tabanus*, or the gad-fly. He gives the preference to *Tabanus*, varieties of which are found all over the world, and in particular to *Tabanus autumnalis*, which bears a very close zoological resemblance to the οἶστρος. It is common for *Tabanus autumnalis*, like most gad-flies, to inhabit wooded localities—a fact which was noted by the ancients. Its larvae live in the water. Aristotle makes out that the οἶστρος is developed from small animalcules which one sees on the surface of river water. In that respect he is right, but he is obviously in error when he states that the gad-fly is derived from an insect which appears from his description to be *Culex pipiens*.

An objection which has been raised against the identification of *Tabanus* with οἶστρος is that Homer says the insect attacks cattle in the spring-time, whereas autumn is the more usual season for cattle to be persecuted by these pests; but M. Moulé points out that the poet's words are somewhat vague, as they include the expression, "When the days are long," and therefore he does not consider that much weight can be attached to this apparent discrepancy. It is impossible to make out any precise distinction between οἶστρος and μύωψ, as the two words are often used as synonymous. If there be a distinction, the author suggests that the latter may be identical with *Chrysops caecutiens*. The confusion between οἶστρος and *asilus* may be accounted for by the fact that the *Asilidae* are often found swarming round cattle at the same time as gad-flies, the latter insects being pursued by the former.

In addition to the usage which has been discussed, the word οἶστρος was sometimes employed in quite different senses. M. Moulé quotes from Pliny, Columella, and Palladius, three Latin authors, who all speak of the *Oestrus* as an insect pest which troubles bees. They state that at the extremities of the honeycomb there sometimes appear bees of larger size than the others; the former harass the ordinary inhabitants of the hive and put them to flight. This noxious species, says Pliny, is called *Oestrus*. (Oestrus vocatur hoc malum.) Columella and Palladius have recorded similar observations, and state that the Greek authors who gave the name οἶστροι to these objectionable insects recommend that they should be killed. From the descriptions of these authors it is not clear, says M. Moulé, whether the so-called οἶστροι are the drones or the queen bees. The ancients did not understand the function of the queen, and apparently were not aware that it is the custom of the workers to extirpate the drones after the queen has been fertilized.

Another very peculiar and quite different usage of the word οἶστρος occurs in Aristotle. He states that both the tunny-fish and the sword-fish are tormented by οἶστροι about the time when the Dog Star rises. At this period both these fishes "harbour, in the region of their fins, this species of larva which is called οἶστρος; it bears a resemblance to a scorpion, and is about the size of a spider." Apparently some crustacean parasite is referred to, but M. Moulé cannot find sufficient data for its precise identification. The fish in question may be the *Thynnus mediterraneus* and the *Xiphias gladius*.

There is also an obscure allusion in Aristotle to a bird which he terms οἶστρος, and classes amongst other birds which are characterized by their habit of feeding on the larvae of insects. The suggestion is offered that this bird may be the *Buphaga africana*, which seizes the larvae of *Hypoderma bovis* developed under the skin of cattle; but there is no evidence that the ancients were acquainted with this insect or with its habits.

[1] *Archives de Parasitologie*, Tome xiii. (1909), p. 251.

British Medical Journal.

SATURDAY, DECEMBER 11TH, 1909.

JUBILEE OF THE FIRST DENTAL DIPLOMA.

ON December 13th, 1855, a memorial signed by eighteen of the leading men then engaged in the practice of dentistry in London was presented to the Council of the Royal College of Surgeons of England praying that an examination in the department of dental surgery should be instituted by the college, and expressing the opinion that the time had come "when it is imperative that some educational course should be instituted, and that an acquaintance with the general principles of surgery, anatomy and physiology, and an intimate knowledge of such parts of those subjects as relate to the region of the mouth, are absolutely essential to the duly qualified practitioner." Although the Council did not see its way immediately to take action, it moved shortly after the Medical Act of 1857 had been passed, and on September 8th, 1859, a charter was granted enabling the college to institute the Licence in Dental Surgery. It was this event which was celebrated last week by a dinner in the college library, and by the opening of the Odontological Collection now in the custody of the college, and formed by combining the John Hunter's collection with that gathered together by the labours of many members of the Odontological Society, now the Odontological Section of the Royal Society of Medicine.

The lapse of fifty years, though no long period in the history of a great corporation, is long enough, measured in the lives of men, to have removed from the scene every one of those who stood high in the counsels of the college at that time, and all but one of those who signed the memorial asking for the establishment of a dental diploma. And so, in the absence of any of those who could speak from their own knowledge, and tell more of the events than is to be found upon official records, the President, Mr. Butlin, devoted no little time and pains to acquainting himself with the contents of the journals of the time, and was able to present to his hearers a graphic picture, which will, we have no doubt, interest readers as it interested those who heard it. Very naturally he was impressed by the chaotic condition of dentistry prior to 1858, when all sorts and conditions of men could and did practise it, and he quoted an amusing advertisement in which a Frenchman and his wife announced that they filled teeth with emeralds and extracted them by steam. After many conferences and much preliminary work, of which little remains on record, though it is well known to those who have succeeded to its fruits, the memorial to which we have referred was sent to the college. The memorialists, in arguing for the necessity of a dental diploma, were not likely to paint things any better than they were, and on one point the terms may give rise to an incorrect impression—namely, as to the position of dentistry in England and America. It was quite true that in America there were a large number of good dentists; quite true also that they had established organized schools before that had been accomplished in this country; but in the practice of the dentist's art the best English practitioners were not one whit behind, whilst a comparison of the dental literature of the two countries is not unfavourable to this country. Owing to certain legal difficulties, it was found that a new charter was necessary to enable the college to examine in dental surgery, but in the first year after it was obtained no fewer than 111 candidates obtained the diploma, of whom some were already in possession of medical qualifications, and many others held a high position in their profession.

But the dissensions which had arisen in the earlier stages were not yet dead. There was one party numerically strong, though lacking the influence of their opponents, which thought that dentists should be autonomous, should grant their own diplomas, and should avoid connexion with the medical profession and its licensing bodies; they founded a College of Dentists, which survived for six years and was eventually merged in the Odontological Society, which had been founded by the other party. The controversy was not conducted without heat, and there remains in print the pronouncement that the College of Surgeons "has sold itself to money-making schemes and despotic government," and that "in a few years . . . the College of Surgeons will . . . stand with shame-subdued face, and cold, creeping mien, the wreck of fortune and the laughing-stock of its enemies," amongst whom the writer magnanimously said he was not to be counted. It says much for the good sense and loyalty of the College of Dentists' party that when the hatchet was buried and fusion had taken place they worked cordially with their former opponents, and many of them took a prominent part in the public life of the profession thereafter.

Those who now revive the old controversy, and advocate the separation of dentistry from medicine, would do well to study this history of the past, and take its lessons to heart, for dentists had and have much to gain by close association with a body having the prestige of the Royal College.

So soon as the charter was obtained it became necessary to consider what the curriculum should be. While it was felt, especially by those who held medical qualifications, that the gain to them in their everyday work through a knowledge of medicine was incalculable, yet it was considered that while some knowledge of medicine was essential, and a full and complete medical education not too much, it would be impracticable to impose this condition on the rank and file of the dental profession. So much time must be devoted to the acquirement of special knowledge that this condition would have made the dentist's education longer and more expensive than that of the medical man. A curriculum, equal in length to the medical curriculum of that day, was sketched out, in which the student up to a certain point did the same work as his medical brother, but did not go on so far, whilst in addition he attended the instruction of a special school. That the curriculum was wisely devised is evidenced by the fact that it has sufficed with only slight alterations to meet the calls of increasing knowledge for fifty years, and still stands unchanged in its main features.

Mr. Butlin appears to hold that the time has arrived, or will soon arrive, when this partial medical education will no longer suffice, and expressed the opinion that a large number of persons practising a speciality of medicine without holding a medical qualification is a standing menace. However much it may seem desirable that full medical qualification should be taken, there are factors which seem to render the

realization of this ideal remote. No one who is unacquainted with the conditions of dental practice in the provinces can quite realize the extent of unqualified competition of the most unscrupulous kind, and so long as the inherent weakness of the Medical and Dental Acts fails adequately to stop unqualified practice, it is hardly possible to require more than is at present required for dental qualification. The fear that the dental licentiate will assume the functions of a second grade of medical practitioner—a fear that finds expression not for the first time—has not been realized, unless, indeed, the suggestion of legalizing the administration of certain anaesthetics by qualified dentists be so regarded.

Mr. Butlin avowed his strenuous and successful opposition to the proposal that the University of London should follow the lead of the younger universities in establishing a dental degree without prior, or coincident, full medical qualification. There is much to be said for his view if such a degree is to be regarded as a higher degree and not as a minimum qualification, but it might be objected that the view is not perhaps quite consistent with the modern belief that the medical curriculum should be lightened by directing all teaching in preliminary subjects very strictly to their ultimate application. The University of London itself has already adopted this idea and put it into practice—an example which has been followed by the new University of Belfast, and will, it is said, be followed also by Bristol. It might be urged that medical teaching for the dentist should be thus directed, and that this would be consistent with covering the whole ground of medicine. There is much to be said on both sides of the question, and this is not the place for its full discussion.

WIT AND WISDOM FROM "VANITY FAIR."

ELSEWHERE will be found a full report of the case of Adams *v.* *Vanity Fair* and others. The case is one of great interest to the medical profession; but, owing to circumstances into which we need not enter here, we refrain from commenting upon it at present. The delay is of no importance, as the report speaks for itself. In the meantime, however, it may help our readers to form a judgement as to the significance of the verdict if we give them some examples showing the attitude of *Vanity Fair* towards the medical profession.

We do not suppose that there are many people of such holy simplicity as to attach any importance to what is said by writers in that periodical. Yet things may have a value altogether different from their intrinsic worth, and it would be unwise to follow the example of the fowl in the fable who contemptuously kicked aside the jewel she had scratched up in the dust heap. We happen to have a small collection of gems gathered in like manner from contributions to *Vanity Fair*. They are signed "Ernest Pomeroy." That gentleman bears, we have no doubt, the white lily of a blameless life; moreover, he is by courtesy known and styled as "Honourable." His notions of honour—apart from courtesy — are shown by his answers in cross-examination, and nothing further need be said on the subject. But his temper of mind in regard to the medical profession is probably not so well known, except to the select few who happen to be aware of his existence; therefore we think a few samples of the gems which he offers to strollers through Vanity Fair may be useful in helping our readers to understand the mental character of the purveyor. As Sir Toby Belch says, why are such things hid?

In an article entitled, "Should we call doctors dear?" published on January 6th, 1909, Mr. Pomeroy says: "With female doctors I have known it done, and in some cases 'Puss.' But with the male fee-hunter I prefer the good old nickname of 'Sawbones.' On the other hand, why call him anything, or at all? you will do far better without him." He goes on to deliver himself of some illuminating remarks on the training of the "modern Sawbones," and on vivisection, bacteriology, serumtherapy, and inoculation. This brings him to vaccination, as to which he says that "Herbert Spencer has pointed out that a person suffering from small-pox gets rid of various other disaffections in the pustules that form, and to bottle up all of these to repass the output into us again is far too monstrous an infliction to be accepted without protest." Accordingly, Mr. Pomeroy protests; but does he not protest too much? If small-pox rids us of "disaffections," surely the right thing to do, on his own showing, is to spread the disease as widely as possible. He would probably accept this inference if he really believes what he says when he declares that "vaccination produces more evil results, including death, than small-pox itself." Mr. Pomeroy knows nothing of small-pox, or he would not write this rubbish. It is one of the cankers of a calm world and a long peace that men forget the horrors of war, and do not appreciate the benefits of its cessation.

In *Vanity Fair* of January 13th, 1909, Mr. Pomeroy gives us his opinion on medical etiquette. As coming from so "honourable" an authority, it should be valuable. But it is only characteristic. After expressing his belief that medical etiquette is connected with the devil and all his angels, he goes on to say: "The whole question needs scrutiny, for only the other day a member of the profession told me that the motives of the medical fraternity were, at all events among themselves, held to exceed in purity even those of the clergy. Thus, on paper, no doctor will actively attempt to take a patient from another even if he can save the patient's life, and to say that he did so save a life is held among fee-hunters to be a libel. I am not surprised. It accounts for many deaths. Then to state that one doctor in introducing custom to another reaps any mundane reward, or secures any percentage of the fees, is also held to be libellous by unduly susceptible persons. And they sue you too. But how are the public to know this? For such a practice is common in all other professions. If you bring custom to any firm, it is quite usual to receive a percentage. And I cannot see how anyone can be expected to guess that the motives of the fee-hunting sawboneses are ultra-mundane and exceed in purity even those of our men of God. I should never have dreamt it. In fact, my own opinion of doctors is that they share with solicitors a lower ethical standard than is found in any other body of men, excepting, perhaps, 'comrades.'" What the esoteric meaning of the last remark may be we have no idea, but it is comic to find Mr. Pomeroy speaking respectfully of the "men of God," with whom, as may be seen in his evidence, he devoutly thanks heaven that he has not had much to do! Mr. Pomeroy also says: "But to me the most astounding impudence of the fully-licensed practitioner is this: In countless cases the doctor proper is found useless, and a resort is made to unlicensed practitioners, called quacks by their

licensed brothers. Sometimes the so-called quack saves the patient. But if the so-called quack fails, and the patient dies, then the fully-licensed fee-hunters turn up at the inquest and state that with proper medical attention the life might have been saved. The quack is then charged with man-slaughter. More Medical Etiquette! Yet the motives of the quack are right enough, and he has the advantage of not having had his mind vitiated in the bacteriological and vivisectional folly inoculated in the medical schools. So much for the medicine men. I think I have written enough to prove what I offered to prove, viz., that the etiquette of medical men is all nonsense, and that its ultimate portion should be everlasting fire." Mr. Pomeroy is entitled to his touching faith in quacks; but if doctors are so useless, what becomes of his complaint that medical etiquette has been the cause of many deaths, because "no doctor will actively attempt to take a patient from another even if he can save the patient's life"? The "honourable" gentleman is evidently incapable of understanding the motives that actuate members of an honourable profession.

As might be expected, Mr. Pomeroy is an anti-vivisectionist, and an advocate of faith-healing; he professes to see in the King's recovery from the attack of typhoid fever which so nearly blighted the nation's hopes "a very noteworthy testimony to the value of prayer." It is true he hedges by saying afterwards that he is not quite sure that he believes in faith-healing himself absolutely; "but at any rate, faith does no harm, while doctors do." If he is not quite sure that faith-healing is sufficient by itself, how can he be sure that too much faith does not do harm by leading to neglect of ordinary precautions, to say nothing of skilled treatment?

But it is useless to argue on such matters with Mr. Pomeroy, for he either does not understand them, or is blinded by prejudice. It does not concern us to inquire whether he is a clumsy *poseur* or a particularly virulent fanatic. We only wish to show what manner of man he is. "The style is the man," and no comment could add to the effect of Mr. Pomeroy's self-revelation.

The shafts, poisoned though they are, of so feeble a critic, pass by us like the idle wind. If he wishes to hurt us, let him glorify us; for as Johnson said, praise from such a fellow is vituperation.

SCHOOL CLOSURE.

SEVERAL times during the past twenty years there has been issued from the medical department of the Local Government Board a memorandum indicating the circumstances under which the closing of a public elementary school on account of infectious disease or the exclusion of particular scholars may be required. The last was dated January, 1908, and bore the signature of Dr. Franklin Parsons, Assistant Medical Officer of the Board. The Board of Education has taken the opportunity offered by the appointment of school medical officers to revise the articles in the code of regulations for public elementary schools which refer to the exclusion of individual children or to the closure of an entire school or department. Under the altered circumstances it has been deemed necessary to issue a revised and enlarged edition of the memorandum referred to, and in its preparation the Chief Medical Officer of the Board of Education has quite appropriately co-operated. The new code makes little alteration in the method of compulsory closure. This can still be carried out by resolution of a sanitary authority, or by any two members of the authority on the advice of the medical officer of health, although the school managers can no longer appeal against an order to close from either of these sources. Under former codes a school could be closed voluntarily, or children could be excluded from school attendance under "medical authority," but the present code requires that this voluntary closing or exclusion shall be under the advice, or with the approval, of the school medical officer. To enable this official to comply with this requirement, it is suggested that whenever a medical officer of health recommends a teacher to exclude a child from school attendance he shall at the same time send an appropriate certificate to the school medical officer, who will then be able to give the formal authorization required by the code. In the large towns the positions of medical officer of health and school medical officer are, with few exceptions, held by the same person, so that the necessity for this dual certification will not arise. In the rural districts, however, it is likely that the suggestion, if insisted upon, will add very materially to the clerical labours of medical officers of health. The amount of office work which falls to the lot of these officials is already very great, and, even where the district is large and populous and the appointment a whole-time one, it is quite the exception for any clerical assistance to be provided by the appointing authority. If the requirements of the memorandum are to be fulfilled, the medical officers of health of these districts will be so fully occupied with work which would be much better performed by a trained clerk that their legitimate and more responsible duties will have to be neglected. In many parts of the country school managers seem to consider that a school should be closed upon the appearance of a single case of infectious disease, and pressure is often brought to bear upon the medical officer of health to authorize this procedure. In this connexion it is satisfactory to find that Dr. Newsholme and Dr. Newman, in their memorandum, endorse the opinion given in previous memorandums by Sir Richard Thorne, Sir William Power, and Dr. Franklin Parsons, that "closure should be advised by the medical officer of health only in circumstances involving imminent risk of an epidemic, and not then as a matter of routine, nor unless there be a clear prospect of preventing the spread of infection such as cannot be expected from less comprehensive action." Closure by a medical officer of health can only be justified when he is convinced that the school is a centre of infection, and when he has exhausted all other means at his disposal for discovering that centre. At its best complete closure is but a clumsy weapon to use.

"SECRET REMEDIES."

IN an article published on October 16th, p. 1174, it was stated that advertisements of the volume entitled *Secret Remedies*,[1] tendered to the *Daily Express*, *Daily Chronicle*, *Star*, *Graphic*, and *News of the World*, had been refused. Many will learn with regret that to this list must now be added the *Daily News*, founded by Charles Dickens, the champion of the poor and the denouncer of shams. Another addition is the *Christian Herald*, and some may be surprised to find a periodical, ostensibly

[1] Published by the British Medical Association, 429, Strand, W.C. 1s.; post free 1s. 3d.

published for the dissemination of Christian truth, so shy of helping to spread chemical truth. This surprise will perhaps not be shared by any one who has made even a casual study of some of these publications, for the advertising columns of many of them are swollen with nostrum-mongers' claims and testimonials. The claims will certainly not bear a moment's impartial examination, and as to the testimonials, some curiosity may legitimately be felt. We are all familiar with the common form, as the lawyers would say, of these documents. The giver, after consulting many doctors and visiting many hospitals, had found life intolerable or death close at hand, when he or she was lucky enough to read an advertisement recommending somebody's pill, or blood purifier, or ointment; and the story is often illustrated by a picture of the giver "before" and "after." It would be rash to assume that all these testimonials are genuine, but it would be equally rash to assume that the givers of them all receive any consideration in return. The craze for seeing one's name in print is a common foible of latter-day humanity, and *Truth*, in a recent issue, related a curious instance. A motor cyclist, we read, who had been attempting to lower a world's record, wrote to the proprietors of a certain ointment that he had been thrown from his machine, sustaining injuries which, though medically treated, grew worse, until he was persuaded to give the remedy advertised by the persons he addressed a trial. He enclosed a testimonial, and offered to sell the copyright of his photograph for publication. The firm in question declined this tempting offer; but a little later advertisements began, it is stated, to appear containing a testimonial from the same cyclist, telling the same story, but attributing his marvellous recovery to another remedy. His offer to sell the copyright of a photograph, however, had not been entertained by this second firm, which obtained a photograph of him from a professional source, paying the professional charge, and giving the motor cyclist nothing. In commenting upon this our contemporary says: "In this case the few shillings profit which the testimonialist might have made out of the sale of his photograph could hardly be considered sufficient inducement to tempt a record breaker to give a bogus testimonial. Gain clearly was not his object, and I can only put it down to an inordinate desire to keep himself before the eye of the public." *Secret Remedies*, in spite of the fact that it is boycotted by some newspapers, continues to command an extensive sale, and another large issue has recently been put in hand. The volume, as our readers are aware, contains the results of the chemical examination by an analyst of a large number of the nostrums and secret remedies, so-called patent medicines, which are extensively advertised in various ways. The sums which certain newspapers receive from this source must be an important part of their revenue, and the refusal to accept an advertisement of a book which tells the truth about many of the nostrums most extensively advertised would appear to be dictated by a prudent desire not to offend the dispensers of drugs and pounds. But it does not show the boasted independence of the British press in a very bright light, or if the light be bright, it discovers a rather ugly picture.

RESEARCH DEFENCE SOCIETY.

WE think it well to call special attention to a public meeting of the Brighton and Sussex Branch of this Society, which is to be held at Brighton in the Royal Pavilion on Monday next, December 13th, at 3 p.m. The speakers will include Lord Cromer, President of the Society, and Sir Arthur Conan Doyle, M.D., President of the Brighton and Sussex Branch. The patrons of this branch are the Duke of Devonshire and Lord Leconfield, and the branch has already a large number of members. The society has received the approval and active help of the medical profession, and we take this opportunity of expressing the hope that it will continue to receive in increasing measure the support of all persons interested in the advancement of medical science, which means the increase of the well-being and efficiency of the individual and the race. The society has done much to create a reasonable and well-informed opinion all over the country as to the value and the necessity of experiments on animals, and as to the conditions and the objects of the experiments made at the present time in Great Britain and Ireland under the provisions of the Act; but a great deal still remains to be done. Till the Research Defence Society undertook the task of educating the public mind on this subject the fanatics on the other side had it all their own way on public platforms. That it is already beginning to influence opinion is shown by the action taken by the Battersea Borough Council as to the "Brown Dog" which it has found an embarrassing gift. Again, at a meeting of the Hull and District Antivivisection Society held on December 1st, as reported in the *Eastern Morning News* of December 2nd, Canon Nolloth, who presided, opened his remarks by the confession that the antivivisection agitation was not universally popular, and that it was one of those causes with which some people were afraid to associate their names. This is a significant admission, in view of the enormous advantage which a lavish use of "platform facts" and rhetorical appeals to sentiment gives to speakers who attack a position that can only be defended by plain statements of fact and expositions difficult to make intelligible to an ordinary audience.

INSANITY IN LONDON.

THE recently issued twentieth annual report of the Asylums Committee of the London County Council[1] contains some elaborate statistics relating to insanity in London, some of which are specially interesting in throwing useful light upon the important problem of the alleged general increase of insanity. This report shows that on January 1st last the number of the insane chargeable to the London rates was 26,848, showing an increase of 678 upon the number at the commencement of the preceding year. Of this number 19,716 were inmates of the various asylums and institutions under the direct control of the London County Council, 6,763 were in institutions provided by the Metropolitan Asylums Board, and only 369 were either located in workhouses or were residing with relatives or friends in receipt of outdoor relief. The increase during last year in the number of the certified insane in the various metropolitan institutions was in great measure the result of increased accommodation provided at Colney Hatch, Cane Hill, and Manor Asylums; and the number of metropolitan insane not resident in asylums showed a further decline from the numbers in recent years. As no less than 98 per cent. of the certified metropolitan insane were, at the beginning of this year, housed in asylums or special institutions, it may be assumed that the provision of accommodation for the County of London has now fairly overtaken the demand. The figures quoted above imply that on January 1st last the proportion of the London population certified and registered as insane was equal to 5.44 per 1,000, whereas the mean proportion in the whole of England and Wales at the same

[1] BRITISH MEDICAL JOURNAL, October 30th, 1909, p. 1306.

date did not exceed 3.60 per 1,000, according to the last report of the Lunacy Commissioners. With reference to the continued increase in the number and proportion to population of the certified insane, not only in London but in England and Wales generally, the effect of accumulation resulting from the constant decline in the death-rate of the insane in asylums, and in the rate of cases discharged on recovery, must not be overlooked. The report of the London Asylums Committee contains a table showing that the combined ratio of recoveries and deaths among the mean number of resident inmates of the metropolitan asylums and institutions averaged 21.3 per cent. during the four years 1890–93, and has since steadily declined to 15.3 per cent. in the last three years 1906–08. This marked decline in the ratio of recoveries and deaths implies that if the ratio of discharges (including deaths) had been as high during last year as was the mean ratio during the four years 1890–93, the number of the certified insane remaining in the metropolitan institutions at the end of the year would have been fewer by more than 1,500 than was the case under the influence of the decreased rates of recovery and death that actually prevailed during last year. Accumulation, therefore, due to this decrease in the recovery-rate and death-rate far more than accounted for the reported increase in the number of inmates of the metropolitan asylums during last year, so that this reported increase affords no conclusive proof of any recent real increase of occurring insanity within the county of London.

THE COLLEGE OF PHYSICIANS OF PHILADELPHIA.

THE new buildings of the College of Physicians of Philadelphia, in which its great library is to be housed under conditions affording every facility for its profitable use, were described in an illustrated article in the BRITISH MEDICAL JOURNAL of October 16th, p. 1161. The opening ceremony took place last month, when a meeting under the chairmanship of Dr. James Tyson, President of the College, was held in the Weir Mitchell Hall, which occupies almost the entire front of the second story. An address was given by Dr. John S. Billings, the delegate of the New York Public Library and the Carnegie Institution, who congratulated the college on its new buildings, and the public library of Philadelphia on the fact that it would in future have at hand a complete and well-ordered medical library to which persons interested in the study of the subjects of sex and heredity might be referred. Dr. Charles L. Dana spoke as the representative of the Academy of Medicine of New York, Dr. R. H. Fitz for the Boston Medical Library, and Dr. William S. Thayer for the Medico-Chirurgical Faculty of Maryland. Dr. Robert Fletcher had been nominated as the delegate from the library of the Surgeon-General's Office at Washington, but being prevented by illness from attending, sent a short address consisting of a description of a rare reprint of the *Tabellae* of Vesalius, recently presented to the Surgeon-General's library by Sir John Stirling, through the good offices of Dr. William Osler. Dr. Frederick P. Henry, honorary librarian of the College of Physicians of Philadelphia, then gave an historical sketch of the college and enlarged upon the library and the museum. It was next announced that the college had elected seven Associate Fellows from the medical profession outside Philadelphia; they were Dr. A. B. Macallum, professor of physiology in the University of Toronto; Dr. Oliver F. Wadsworth, professor of ophthalmology in Harvard University; Dr. Edward G. Janeway and Dr. Charles L. Dana, of New York; Dr. Frank Billings, of Chicago; Dr. G. W. Crile, of Cleveland; and Dr. Franklin P. Mall, of Johns Hopkins University. It was announced that congratulatory telegrams had been received from the Royal College of Surgeons of England and of Edinburgh, and Dr. William Osler. A dedicatory address was then read by the President, Dr. James Tyson, after which the benediction was given by the Bishop of Pennsylvania. In the evening a banquet, attended by 500 members and guests of the college, was held, and Dr. Weir Mitchell made an interesting speech in response to the toast, "The Old College and the New." Medicine, he said, was the noblest and most revolutionary of all professions, for ever changing and changing, ever for the better. "We try, condemn, and decapitate the thought king of to-day, and enthrone the better thought king of to-morrow." After outlining the history of the college, he said that the new building was destined to witness great things. It would endure to see the end of many diseases of which men now thought with anticipatory dread, and it would endure to witness the passing away of much quackery. The next speaker was Mr. Andrew Carnegie, who had given 100,000 dollars towards the completion of the building. He said that he was satisfied that by giving 75,000,000 dollars for the foundation of 2,000 libraries he had expended his surplus wealth in the best way. Dr. W. W. Keen then described the contents of the library and extolled the men who had contributed to its stores.

THE SOLDIER'S KIT.

THE Committee on the physiological effects of food, training, and clothing on the soldier has issued a fourth report dealing with clothing and equipment. Under ordinary conditions, when appearances need not be considered, a man adapts his clothing to the work to be done and to the weather, but the clothes of the soldier on active service must be a compromise between light uniform for work in hot weather and heavier clothing to resist inclement weather. The committee has pointed to an important method of adjustment, that the coat and shirt may be widely opened during work and hot weather, and has insisted that instruction to do this must be given by the commanding officers, for it has "evidence that it is not sufficient to leave the initiative to the company commanders or to the men themselves." This throwing open of the jacket could not be efficiently carried out with the old style of equipment, owing to the belt which clasped the waist, and the bandolier, water bottle, and haversack straps which crossed the chest. The new equipment, known as the Mills-Burrowes pattern, is so adjusted that even in full marching order the belt can be unbuckled, while the water bottle and haversack have no body straps, and all ammunition is carried in the belt and the side-straps, which are arranged as braces. When the jacket is unbuttoned and the belt is unclasped marching can be performed with ease, for the weight of the pack behind is balanced by that of the ammunition in front. The result of this is that, although the new equipment weighs 2 lb. more in drill order, and ½ lb. more than the old in full marching order, it is worn with greater ease. Evaporation of moisture proceeds more rapidly owing to the exposure of the shirt and skin, and a much smaller quantity of moisture is retained in the clothes. With the old equipment a similar beneficial result could be obtained only by taking off the jacket. In one case, with the old equipment, after a march of seven miles on a hot day the shirt was so wet that it had gained 14 oz. in weight, and moisture could be wrung out from the part covered by the overcoat pad. The belt and straps of the old equipment not only prevented the jacket being opened, but produced a resistance to the respiratory movements. The

bandolier with its ammunition weighed 4.13 lb., and this weight had to be raised during each breath, while the constriction of the belt impeded the free return of blood to the heart. The new equipment is free from all these defects, for the belt can be loosened or unclasped on the march, the weight in front balancing the weight behind, and being borne by the shoulders. During a short halt it is impossible for the men in full marching order to throw off the old, but they can the new equipment, and as easily resume it. The weight of the full equipment is excessive for young recruits during route marches or manœuvres. The Committee insists on progressive training, and the load for recruits should at first be lightened. "With progressive training, there is no reason to fear that the weight of the full equipment would injure men, especially if the precautions were taken to cool the body on hot days by opening the belt, jacket, and shirt, and to take off the equipment during any halt of definite duration." The Committee finds that the shirt and boots are good; the jacket, too, is good, but a tendency to make the collar too high and tight must be discouraged. The trowsers are good, but the Committee has leanings towards the greater freedom of the short trowsers worn by scouts, or to kilts. As to the Territorials the Committee insists on practice in marching before going into camp, and on the importance of opening coat and shirt during marching. For town workers practice is particularly required to prevent foot soreness which is a frequent cause of inefficiency and falling out. Neglect to provide suitable socks and changes of socks is partly the cause of this. A light slouch hat would be much more serviceable for Territorials than the present field service cap, for numbers of them last summer suffered from sunburn and blisters on the neck. One of the members of the Committee, Dr. Pembrey, joined the men picked for the tests, and marched himself in the different equipments. The Committee expresses its warm appreciation of the services of its Secretary, Captain L. E. L. Parker, R.A.M.C., and of the researches conducted by him.

BOTANICAL LABORATORIES, UNIVERSITY COLLEGE, LONDON.

The new botanical laboratories at University College, London, will be opened on Friday next, December 17th, by Dr. D. H. Scott, F.R.S., late Honorary Keeper, Jodrell Laboratory, Royal Gardens, Kew. The chair will be taken by the Vice-Chancellor of the University of London at 4 p.m. The new buildings consist of some twelve rooms on the uppermost floor of the north wing. The lighting arrangements have had special study, and the lecture theatre and other important rooms of the suite have a northward aspect. The rooms include a herbarium and a special apartment for ecology. The relationship of plants to their surroundings is to be studied here, and among the objects of interest in the room are relief models illustrating the elevation taking place in the soil due to plant action. The room is filled with botanical maps, water-colours, and photographs, as well as specimens. The situation of the rooms has enabled the designers of the laboratories to sandwich in a small glass-roofed greenhouse for exotic plants. A library, a room specially equipped for photomicrographic work, and a room for chemical and physiological experiment have also been provided. This last represents, perhaps, the greatest boon that the new laboratories offer to the department, for up to the present it has not been possible to provide a separate room for the chemical work of the students in botany. In the laboratory proper the advanced and the elementary students have separate compartments. The advanced laboratory, equipped with all necessary apparatus, accommodates about thirty students. The elementary room is of about the same size, but it has accommodation for forty or more. The lecture theatre has desk accommodation for about one hundred. Not only do the professorial staff give lectures, but the students also lecture before their fellows and before the staff and show diagrams of their own preparations, after which there is discussion. Among other smaller rooms is one for botanical odds and ends and raw material; one for the attendant; a photographic dark room, which appeared to be, if anything, too large; a room for original research, as well as private rooms for the professor and assistant professor. The new laboratories will certainly make for the greater efficiency of an important department, which has hitherto suffered from being scattered in different parts of the great college—"between attic and cellar," as Assistant Professor T. G. Hill described it.

THE BOMBAY MEDICAL CONGRESS, 1909.

The medical congress which assembled in Bombay in February last was the second gathering of its kind in India, the first having met in Calcutta in 1905. Both meetings were interesting and successful, and it is satisfactory to note that in point of social and scientific value the later congress was in advance of its predecessor. The undertaking was initiated by the Governor of Bombay, His Excellency Sir George Sydenham Clarke, R.E., G.C.M.G., G.C.I.E., F.R.S., who held the office of President, delivered a most admirable presidential address, setting forth clearly and concisely the chief advances in scientific knowledge which have revolutionized medicine and surgery during the last half century, and give promise of greater achievements in the future. The arrangements for the business of the congress were most successfully carried out by a series of local committees, and the amount of work done in a few days was, owing to good organization, very substantial and creditable. The subjects discussed were, as might be expected, almost exclusively tropical, and in each section interesting papers were read which gave rise to important discussions, as has already been reported in our columns.[1] The members of the congress numbered 1,268, and of these very nearly one-half were natives of India. The public services were well represented, and private practitioners attended in force. Scientific municipal workers took a prominent part in the business, and medical missionaries, lady doctors, visitors, and delegates were also present. Communications were also received and read from distinguished men of other countries who were unable to be present in person. The *Transactions* of the congress have recently been published. They constitute a portly volume of 632 quarto pages. Papers are printed *in extenso*, and condensed reports of discussions are given. The volume is edited by Lieutenant-Colonel William Ernest Jennings, M.D., D.P.H., I.M.S., who acted most efficiently as general secretary of the congress. He prefaces the work with a most instructive summary of the salient topics discussed in the sections, and the conclusions established regarding the principal subjects of discussion. This preface provides an excellent *index raisonné* of the contents of the volume. It is arranged according to diseases, and is most helpful as a key to the large mass of detail presented in the record. The printing has been well executed by the *Times of India* Press, and many excellent plates and illustrations are reproduced. The

[1] British Medical Journal, vol. i, 1909, pp. 746, 810.

impression left by a perusal of the *magnum opus* is that a very large amount of careful and conscientious research has been accomplished in India during recent years, and that, under the generous encouragement of Government, a great number of able and enthusiastic workers are striving hard to solve the many problems bearing on the public health, on the solution of which the welfare of Indian peoples so vitally depends. These *Transactions* represent well the present state of knowledge regarding malaria, plague, cholera, dysentery, enteric fever, tropical and hill diarrhoea, kala-azar, sleeping sickness, beri-beri, and many other maladies which cause so much suffering and death in tropical countries. Nor were the important subjects of tropical surgery and sanitation neglected. A well-arranged and sumptuously-housed exhibition of medical, surgical, and sanitary appliances added interest to the meeting, and afforded material for a series of demonstrations and conversaziones, to some of which the general public were admitted. To the student of tropical medicine this volume is invaluable, and its contents cannot fail to stimulate investigation regarding many matters of moment which still remain obscure, and the elucidation of which will, it is to be hoped, furnish material for a third congress which at some future time—not too far off—will, no doubt, assemble in some other large Indian city. Financially, thanks to the liberality of public bodies and private individuals, the congress was equally successful, a balance of nearly 12,000 rupees remaining after the payment of all expenses, including the printing of the *Transactions*. This sum is to form the nucleus of a fund to be known as the "Miss Clarke Memorial Nursing Fund," which will be held in trust by the Bombay Branch of the Countess of Dufferin's Fund, the interest being devoted to the support of nursing in the Bombay Presidency.

STATE REGISTRATION OF NURSES.

A DISCUSSION on the State registration of nurses announced to take place at the meeting of the Cottage Benefit Nursing Association, practically resolved itself, as will be seen from a report elsewhere, into a monologue by Mr. Sydney Holland who, however, did not make any very new points. The personal character and natural capacity of a nurse are certainly of immense importance, but so are the same qualities in an attorney, a dentist, or a plumber. They can be gauged only by personal experience of the individual, and are valueless in technical connexions unless backed by corresponding technical knowledge. A medical man can readily gauge the personal qualities of a nurse, but he should not be expected to conduct a private inquiry into the training of every nurse sent to him by an agency or found by him at a patient's house. Indeed, Mr. Holland himself admits that some ready means of gaining an assurance in this respect is a necessity, but argues that a directory would fulfil the purpose. He seems, however, to forget that nobody can be expected to keep track of all the institutions which deem themselves entitled to "train" nurses, quite apart from bodies which give certificates of nursing knowledge to persons who have had no real hospital experience whatever. Even a person with special knowledge of such matters might easily be misled by a directory. On a recent occasion, for instance, an unexpected death from shock after an operation at a home, and a casual remark thereon by the nurse who had been in charge, created a suspicion that she had no real knowledge of her work. It was set at rest by her stating that she had been fully trained at the —— hospital, a place with a very imposing name which seemed to be familiar. It was only some months afterwards that the inquirer discovered that there were two places of not very dissimilar title, the place mentioned being merely a small six-bed institution which "trained" nurses for about a year. Nothing but the imposition of a definite curriculum and a register of qualified nurses will put a stop to this kind of thing, and it is because the medical profession recognizes this that resolutions in favour of nurses' registration have been adopted by the British Medical Association.

WATER IN SWIMMING BATHS.

No town at the present day can pretend to be properly equipped unless it includes among its public institutions a swimming bath. The advantages to the community of having facilities for bathing and for acquiring the art of swimming are very great, but there may be certain disadvantages. The most prominent of the latter is the fouling of the water after it has been used by several scores of persons, many of whom maybe have entered the bath in anything but a cleanly condition. The ideal swimming bath would have a stream of water constantly flowing through it, but such a course for financial reasons is impossible of attainment in many districts. This drawback to the healthful use of the swimming bath has long been recognized, and in recent years attempts have been made to provide a remedy. In the metropolitan Borough of Poplar the medical officer of health, Dr. F. W. Alexander, has for more than a year been adding to the water in the five swimming baths in the borough the electrolytic fluid which has been manufactured for several years past by the Poplar council, and used by them for disinfecting purposes. It appears to have been the custom to change the water in the Poplar baths twice weekly, but within twenty-four hours of the time when fresh water had been put in the bottom of the bath became slimy, and there was a feeling of stickiness about the body after bathing, while the water itself assumed a darkish tint. Dr. Alexander states that after applying the electrolytic fluid in the proportion of 1 in 1,000 there is a very marked improvement in the condition of the water, and the bathers declare that it feels fresher and more invigorating. Chemical and bacteriological examination of the water before and after the addition of the fluid reveal a considerable alteration in the purity of the water. The results of further experience of this method of purifying the water of swimming baths will be awaited with interest.

THE COMING GENERAL ELECTION.

THE following list of members of the medical profession who intend to offer themselves as candidates at the coming general election is probably incomplete, and we should be much obliged to correspondents who will assist us in completing it. The sitting members who seek re-election are: The Right Hon. Sir Walter Foster (L.), Ilkeston; Dr. V. H. Rutherford (L.), Brentford; Sir William J. Collins (L.), St. Pancras West; Dr. A. R. Rainy (L.), Kilmarnock District; and Sir G. H. Pollard (L.), Eccles, who, we understand, practises as a barrister. Among the new candidates are: Dr. R. O. Moon (R.), Marylebone East; Dr. Christopher Addison (L.), Hoxton; Dr. F. E. Fremantle (U.), Rotherhithe; Dr. J. E. Molson (U.), Bethnal Green; Dr. Alfred Hillier (U.), Hertfordshire North or Hitchin; Dr. Permewan of Liverpool (L.), Bootle; Dr. T. Eastham (U.), Hyde; Dr. G. Coates (U.), Lichfield; Dr. W. A. Chapple (L.), Stirlingshire; and Dr. H. S. Lunn (L.), Boston, who is, we believe, exclusively engaged in the business of a travel agency.

Medical Notes in Parliament.

[From our Lobby Correspondent.]

The Prorogation of Parliament.—Both Houses finished their business last week. The Lords, after the debate on the Finance Bill was concluded on Tuesday, met on Wednesday and passed the Development Bill after accepting the amendments made by the Commons to their amendments. A resolution protesting against their action being considered a precedent was passed after a division. The Small Dwelling Houses (Scotland) Bill was withdrawn by the Government after the Lords had refused to accept an amendment made by the Commons. In the Commons on Wednesday the House was adjourned after questions, and on Thursday the adjournment took place about 5.30, after the debate on the resolution of the Prime Minister respecting the action of the Lords in refusing to pass into law the Finance Bill. On Friday both Houses met, and the Commons were summoned to the Lords to hear the Royal Assent given to bills by the Commissioners and to listen to the King's Speech and the Proclamation by which Parliament was prorogued to January 15th. It was generally understood that before that date—namely, on January 8th—the Parliament of 1906 would be dissolved.

Colour Blindness (Marine Tests).—Sir William Collins asked the President of the Board of Trade what tests for the detection of colour blindness were employed in the Marine Department of the Board; whether a considerable number of persons rejected as colour blind by the wool test had on appeal been passed as normal sighted; and whether any oculist or medical man was included among the officers conducting these tests. Mr. Churchill replied that candidates who entered for the Board of Trade sight tests now underwent an improved form of Holmgren wool test. Candidates who failed and appealed, or whose cases were referred for final decision, underwent a special spectroscopic examination. During the three years ending December 31st, 1908, 19,262 candidates were examined, and 184 rejected. Of the latter number only 48 appealed, and of these 21 were allowed to pass, either on the ground that their colour vision was normal or that the defect, which the wool test had discovered, was not liable to cause danger at sea. No oculist or medical man was included among the officers conducting these tests, but the Board was advised throughout by the first authority on colour vision in this country.

Old Age Pensions and Lunacy.—Mr. Verney asked the Home Secretary whether a private patient in a lunatic asylum, maintained there entirely by his relations without any charge upon public funds, forfeited thereby his old age pension for which he was duly qualified; and, if so, whether the Government would bring in fresh legislation to remove this disqualification. Mr. Burns, who replied, said that the answer to the first part of the question was in the affirmative. Section 3 (1) (*c*) of the Old Age Pensions Act, 1908, provided that a person shall be disqualified for receiving or continuing to receive an old age pension under the Act while detained in any asylum within the meaning of the Lunacy Act, 1890. He would bring the suggestion for legislation made in the latter part of the question under the notice of the Chancellor of the Exchequer. The matter was one for him.

Health of School Children.—Sir William Collins asked the President of the Board of Education whether he would consider the desirability of instituting an inquiry, either by Royal Commission or Departmental Committee, into the numerous questions which had arisen, directly or indirectly, out of the methods whereby local education authorities were endeavouring to give effect to the powers contained in Section 13 (*h*) of the Education (Administrative Provisions) Act, 1907, for attending to the health of the children. Mr. Runciman said he thought it was desirable to postpone a reply to the question pending the issue of the First Report of the Medical Department of the Board, which was in an advanced state of preparation.

Infant Mortality in England and Wales.—Mr. James Stuart asked the number of deaths in England and Wales of infants under 1 year per 1,000 births in each of the years 1904 to 1908, and in the first nine months of each of these years and of the present year, distinguishing London, the 76 great towns, and the 142 smaller towns from the rest of the country. Mr. Burns replied that the following tables gave the information asked for:

I.—*Infant Mortality in each of the Years 1904 to 1908.*

	Deaths under 1 Year to 1,000 Births in the Years—				
	1904.	1905.	1906.	1907.	1908.
England and Wales	145	128	132	118	121
76 great towns, including London ...	160	140	145	127	129
London	145	130	131	116	113
142 smaller towns	154	132*	138	122	124
England and Wales, less the 218 towns	125	113†	116	106	110

II.—*Infant Mortality in the First Nine Months of each of the Years 1904 to 1909.*

	Deaths under 1 Year to 1,000 Births in the First Three-quarters of each of the Years—					
	1904.	1905.	1906.	1907.	1908.	1909.
England and Wales	149	131	135	113	115	106
76 great towns, including London ...	165	142	148	118	123	114
London	149	129	133	110	110	104
142 smaller towns	157	136*	140	118	117	107‡
England and Wales, less the 218 towns	127	116†	117	104	105	97§

* 141 small towns.
† Less 217 towns.
‡ 143 small towns.
§ Less 219 towns.

Insanitation and Absence of Medical Relief in Lewis.—Mr. Watt asked the Lord Advocate whether the Secretary for Scotland was aware that on page 153, paragraph 31, of the recently issued Report of the Poor Law Commission (Scotland) it was stated that the want of proper hospital provision and means of isolation treatment had caused infectious disease in the island of Lewis to become endemic; and, seeing that the manner in which tuberculosis was becoming general all over the island was attributed to the inadequacy of medical relief, would he state what action he proposed to take in the matter. Mr. Watt also asked the Lord Advocate whether the attention of the Secretary for Scotland had been called to the evidence of the late Dr. Macdonald, of Stornoway, referred to on page 153 of the Report of the Poor Law Commission (Scotland), in which he pointed out that for an area extending 72 miles to the south of the Butt of Lewis, with a population of nearly 13,000, contained in some 40 townships in the parishes of Barvas and Uig, there were only two medical men, whose work was rendered doubly tedious owing to their frequently being obliged to visit the townships on foot from the main roads, many places being accessible by footpath only; that

although typhus and typhoid fever were of frequent occurrence, there was not a single place from end to end of the district in which a case of infectious trouble could be isolated or treated; and, seeing that a similar state of matters prevailed in the parish of Lochs, where there was only one medical man to attend to a population of 6,000 scattered over a wide area, would the Lord Advocate state whether he would consider the expediency of meeting the difficulty by adopting Dr. Macdonald's suggestion and provide additional medical officers, as well as hospital accommodation for the treatment and isolation of infectious diseases. Mr. Ure, in reply to these two questions, said that he had to inform his hon. friend that the Secretary for Scotland was aware of the statements contained in the Report of the Poor Law Commission, which would receive the careful consideration of the Local Government Board. Mr. Morton asked the Lord Advocate whether the Secretary for Scotland was aware that the recently issued report of the Poor Law Commission (Scotland) called attention to the evidence of Dr. Ross, Poor Law medical officer and local medical officer of health for the parish of Barvas, island of Lewis, condemning the conditions under which the people lived in the parish of Barvas; if he was aware that the committee added that these conditions, as described by Dr. Ross, were corroborated by Dr. Dittmar, medical inspector for the Local Government Board for Scotland, and by Mr. Millar, one of the Board's general superintendents, and that members of the committee, having themselves visited the outer islands, had found these conditions to prevail, not only in the parish of Barvas, but also in other parishes; and, seeing that local authorities were unable to cope with the difficulty for lack of means, would he consider the expediency of approaching the Treasury with a view to secure a grant such as would admit of these townships being placed in a suitable sanitary condition, especially bearing in mind that the committee stated that they were convinced that the problem in the Outer Hebrides was largely a public health problem, and that without outside pecuniary assistance it was scarcely possible that any adequate measures could be taken to improve the existing conditions. Mr. Ure replied that he was aware that the report of the Royal Commission on the Poor Laws contained paragraphs in the sense indicated. As he had already indicated, the subject was receiving the earnest consideration of the Government.

Patent Medicines (Label of Ingredients).—Mr. Seaverns asked the Home Secretary whether he was now in a position to state whether he was prepared to appoint a Select Committee to consider the propriety of issuing regulations making it compulsory on all manufacturers of medicines liable to patent medicine duty to print on the label on the bottle or other vessel in which it was sold the full ingredients of such bottles or vessels as well as the diseases they purport to cure. Mr. Gladstone said that he could not at present add anything to what he had said in answer to a question on September 15th, that he was disposed to think the matter might be one of sufficient importance for an inquiry by a Select Committee next session.

Dispensing Poisons.—Mr. Winfrey asked the Home Secretary whether, seeing that the existing Pharmacy Acts did not cover the dispensing of medicines in public institutions, and consequently there was no legislative restriction to prevent unqualified persons from acting as dispensers, he would, in the interests of public safety, consider the advisability of introducing legislation to provide that the dispensing of poisons should be subject to the same restriction as their sale and placed under the control of registered pharmacists. Mr. Gladstone replied that it was probable that in a large number of cases the authorities of the public institutions referred to make use of dispensers who held certificates of competence under the Apothecaries Act, 1815. He understood from the Privy Council Office that, so far as the information available went, no allegations had been made that the persons so employed were unfit to discharge the duties with which they were entrusted, and there did not appear to be any urgent case for further legislation on the subject.

Carbon-Monoxide Gas Poisoning.—Mr. George Roberts asked the Home Secretary if his attention had been directed to the recent case in which a workman was found dead and another unconscious at the Winnington (Northwich) Chemical Works; whether these men had been overcome by carbon-monoxide gas; and, if so, whether he would further consider the advisability of scheduling affection by this gas as a dangerous disease under the Workmen's Compensation Act. Mr. Gladstone replied that he had obtained a report with regard to the circumstances of this case, from which it appeared that the men were suddenly overcome by carbon-monoxide gas while clearing out a cylinder in a tower used for washing residual gases. The case, therefore, appeared to be one, not of disease, but of accident, to which the provisions of the Workmen's Compensation Act were already applicable. It was announced at the inquest, on behalf of the employers, that full compensation would be paid.

Assistant Surgeons (India).—Dr. Rutherford asked the Under Secretary for India whether his attention had been called to a notification in the *United Provinces Gazette*, over the signature of the officiating Inspector-General of Civil Hospitals, *re* public competitive examinations to be held in December for the post of assistant surgeon, that only Europeans and Eurasians were eligible; and whether, in view of the proclamations of Queen Victoria and King Edward VII, the Secretary of State had refused his sanction. The Master of Elibank said that the assistant surgeons referred to in the notification were required for duty in station hospitals with British troops, and for this reason the appointments had always been confined to Europeans or Eurasians. For corresponding appointments with native troops only natives of India were eligible. The question whether any revision of the constitution of the Indian Subordinate Medical Department or of the scope of its employment was advisable, had been referred to the Government of India in accordance with the statement made in reply to a question on September 24th last.

Sleeping Sickness in Nyasaland.—Mr. Rees asked whether an authenticated case of sleeping sickness occurred in the native hospital of the Church of Scotland Mission in Nyasaland last September, and whether the existence of other cases was suspected. Colonel Seely answered that two natives suffering from sleeping sickness were admitted to the Blantyre Mission Hospital on June 8th and August 14th respectively. The first patient died in July, and the second, who came from Portuguese territory, died in September. The natives of Nyasaland were being systematically examined for sleeping sickness. Up to September 30th four cases had been discovered, but there was no reason to suppose that infected persons were numerous in the Protectorate.

Plague in Mauritius.—Mr. Remnant asked the Secretary for War whether he had any information as to the outbreak of bubonic plague in Mauritius; and, if so, whether he would give orders to prevent the landing of the troops—the 7th Fusiliers—who were now on their way there from the Cape. Mr. Haldane replied that he had only received notice of the question about ten minutes previously. He hd no personal knowledge, but he would make inquiry. He had, however, no doubt that the army medical authorities were fully alive to the necessity of taking precautions.

STATE REGISTRATION OF NURSES.

AT a half-yearly general council meeting of the Cottage Benefit Nursing Association held on Tuesday last, a discussion took place on the State Registration of Nurses.

It was opened by the Hon. SYDNEY HOLLAND, who asked the meeting to believe that he was as desirous as any friends of the proposals which had been put forward for legislation, that nothing should be done to lower the standard of nursing in the country. It was proposed, he said, that a council should be formed to arrange what hospitals should be entitled to train nurses for registration, to work out the curriculum of the training, and to set up an examining body. The advantage claimed for this system was the assurance it would offer to the public that a registered person was fit and competent to undertake nursing duty. To use the words of Lady Helen Munro-Ferguson, "The continuance of the nurse's name on the register would be a guarantee of her professional fitness and general fitness for employment." Certainly, if registration would not answer this elementary purpose it would be of no use whatever, and the contention of the supporters of the measure sounded plausible enough, but he did not believe that it would touch the evils involved in the large number of unqualified women who at present wore nurses' uniforms. All that registration would do would be to prevent a woman who was not on the register calling herself a registered nurse. He admitted the evils arising out of the present state of affairs, but it was useless, if not dangerous, to apply a false remedy. With regard to the claim that by means of registration any person might be sure of getting the services of a good nurse, he said that the test of fitness to be applied was an examination. He thought that too much was made of examinations for nurses. There were things far more important in the making of a nurse than mere ability to answer the questions of an examiner. He knew some who had succeeded in examinations and were quite unsatisfactory in practical nursing. More important than the passing of an examination were the qualities of heart and mind. The nurse could never be satisfactorily tested by an examination alone, nor certified as really competent by people who knew nothing about her. Moreover, the examination was bound to be easy, and would have to cover so wide a field and be applied to so large a number of women of widely differing capacities that the result could hardly be satisfactory. Another objection had to be faced in the practical certainty that if nurses got hold of an idea that the one thing necessary for them was to pass an examination, they would ask themselves why they need go to hospitals like the London, where the training was very thorough and of a high standard. Registration would not even necessarily secure a good nurse either to the doctor or to the public. The doctor ought to know something about the nurse whom he engaged, ought to have seen her in attendance at other cases, or, failing these, he ought to go to some hospital or recognized association for sending out nurses. So far as the doctor was concerned, registration would not constitute a sufficient guarantee of competence. As to the public, only the rich were affected. The poor would have the services of the Queen's Jubilee nurses or the nurses of the Cottage Benefit Association, or, if they entered an institution, the trained nurses of the hospitals, and the Poor Law infirmaries. Could not the rich take at least as much trouble in engaging a nurse as engaging a servant? The effect of registration would be to lull the public into a false sense of security. A man would feel that he need not inquire into the character or technical qualifications of the nurse whom he was engaging—she was registered, and that was enough. In engaging a nurse people should go to a hospital or association that had a reputation to keep up. Those who were in charge of such institutions understood the suitability of particular nurses for particular cases. In engaging a registered nurse the assurance would be that, perhaps ten years before, the woman had passed an easy examination, and had left a hospital with a good character. The treatment of the sick was constantly changing. What guarantee was there that the registered nurse would keep abreast of the times? A woman who had not been sent to nurse a surgical case for several years would have grown rusty. It was undeniable that the want of opportunity for nurses in private work and the absence of effective discipline and control brought about a certain amount of deterioration in private nursing. As to the argument that medical practitioners and midwives were registered and that therefore nurses should be registered also, Mr. Holland said that technical efficiency was the first thing expected of the doctor and of the midwife also, but in the case of the nurse the character was at least of equal importance. The remedy for the present state of affairs was something on the lines of an official directory of nurses, as suggested in the bill of which Lord Balfour of Burleigh was the sponsor. A statement of the exact circumstances of the training of each nurse would stimulate a wholesome habit of inquiry on the part of the public. He criticized the Ampthill Ferguson bill, asserting that the composition of the council proposed was radically defective, inasmuch as there was no provision for a matron of a single training school other than a lunatic asylum. The election of the representative nurses also, he thought, would be unsatisfactory. A great number of hospital authorities, including the Central Hospitals Council, as well as 244 matrons and 1,332 nurses, signed the document opposing the bill. He thought that it was unlikely to go through the House of Lords again, and still more unlikely ever to pass through the House of Commons, because there would always be a number of men in that Chamber who understood practical nursing questions.

The COUNTESS OF ANCASTER, who occupied the Chair, condemned the proposals of the bill, but thought that Mr. Holland had rather obscured the hospital training and experience that would be necessary for a registered nurse, in addition to passing the examination.

Miss B. M. BROADWOOD, director of the Cottage Benefit Nursing Association, suggested that every nurse and midwife should be obliged to pay a small sum for a yearly licence—say, 1s. for nurses and 2s. 6d. for midwives—the licence to be backed by at least two medical men who were acquainted with her, and one other person. This would be a guarantee that the nurse had been qualified during the past year, and presumptive evidence of her character and capability for the ensuing year.

Before the discussion the formal business of the Association was transacted, and a statement of the work made by Miss BROADWOOD. She reported that the work of sending women to be trained had increased and developed very greatly within a recent period. Formerly the preparation of the candidates was more or less uniform, but now the great demand for midwives had compelled the Association always to have a certain number of women undergoing that training.

Dr. HICK, of New Romney, read an interesting paper on the provident basis for nursing associations, giving many details of the system successfully employed in his own district.

As the outcome of a conference, held under the auspices of the American Academy of Medicine, on the Prevention of Infant Mortality, held at Yale University on November 11th and 12th, an American Association for the Study and Prevention of Infant Mortality was formally constituted on November 13th. The President is Dr. J. H. Mason Knox, jun., of the Johns Hopkins Medical School; the first Vice-President, Professor C. E. A. Winslow, Biologist in Chief of the Laboratory Research, Massachusetts Institute of Technology, Boston; the second Vice-President, Mr. Homer Folks, Secretary of the New State Charities Organization; Secretary, Dr. Henry I. Bowditch of Harvard. Among the members of the Executive Committee are Dr. J. S. Neff, Director of Public Health and Charities, Philadelphia; and Dr. John S. Fulton, Secretary-General of the International Congress on Hygiene and Demography, Washington. On the Board of Directors are Dr. Charles Richmond Henderson, Professor of Sociology, University of Chicago; Dr. Thomas Morgan Rotch of Harvard; Professor Irving Fisher of Yale, President of the Committee of One Hundred on National Health of the American Association for the Advancement of Science; and Dr. Thomas, Health Commissioner of New York City. The meeting of the Society will be held at Baltimore in the autumn of 1910. Dr. Charles Richmond Henderson was nominated President for 1910–11.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

THE LATE PROFESSOR D. J. CUNNINGHAM.

A MEETING has been summoned by circular letter signed by Sir William Turner, Principal of the University of Edinburgh, Dr. W. Allan Jamieson, President of the Royal College of Physicians of Edinburgh, and Mr. J. M. Cotterill, President of the Royal College of Surgeons of Edinburgh, in the Court Room of the university, on Wednesday next at 4 p.m. The circular letter states that: "The services rendered by the late Professor D. J. Cunningham, not only to the university, but to the entire Medical School of Edinburgh, as well as to modern science in general, were so great that it appears most fitting to institute some memorial of his life and work."

GLASGOW INFIRMARIES JOINT MANAGEMENT.

At the annual meeting of the Victoria Infirmary the Lord Provost said that a good deal of overlapping occurred in the work of the charitable institutions in Glasgow, and expressed the opinion that it might conduce to economy of administration and neutralize this overlapping if some scheme of amalgamation or co-ordination of management were introduced. He also threw out the suggestion that with regard to the three infirmaries, the Royal, Western, and Victoria, each with independent boards at present, some scheme of joint management might not be impracticable. They were all rendering the same service, dealing with the same problems, appealing to the same constituencies, and with systems of management essentially the same. While there was no competition or friction, and from the point of view of equipment or skill the administration could not be improved upon, he thought a combination of forces and co-ordination of effort would present a much stronger case to the public for a common fund than was at present possible.

PREVENTION OF CONSUMPTION.

The annual report of the Glasgow Branch of the National Association for the Prevention of Consumption details what has been done to spread information on the subject by lectures and distribution of literature. The work of the dispensary is also dealt with; it was found that only 39 per cent. of cases were suitable for Bellfield Sanatorium, while 53 per cent. were unsuitable owing to the disease being too far advanced. The Council expresses regret that as a voluntary association it has, owing to the magnitude of the task, been able to do little for such cases.

GLASGOW AND NOTIFICATION OF PHTHISIS.

At a special meeting of the Corporation of Glasgow on December 2nd, a resolution was passed making the Notification Act apply to "tuberculosis of the lung or tuberculous phthisis" for a period of three years. One of the councillors objected to the labelling of an individual in this fashion as an injustice, unless they made provision for his treatment, which meant building sanatoriums. The cost of the notification is calculated at about £1,400.

EDINBURGH POST GRADUATE COURSE.

The Edinburgh Post-Graduate Autumn Course was this year even more successful than its predecessors, no less than 90 graduates attending, as compared with 66 in 1908. The programme for the autumn of 1910, which is practically completed, is very similar to that of the present year, although a new feature will be the introduction of a four weeks' course of internal medicine during the month of August by the assistant physicians of the Royal Infirmary and some of the junior lecturers of the school. The arrangements are as follows: Three courses will be held during the autumn of 1910, a general course, a surgical course, and a course of internal medicine. The two former will run simultaneously during September, while the latter will extend throughout the month of August. The general course, which will be divided into two separate fortnights, will commence on Monday, September 4th, and conclude on Saturday, September 30th. Among the subjects included under this course are medical anatomy, the medical and surgical affections of children, the medical inspection of school children, dermatology, clinics upon diseases of the eye, infectious diseases, and upon medicine, surgery, and neurology, and demonstrations upon morbid anatomy. The fee for the course will be five guineas, or three guineas for either fortnight. In addition to the subjects above mentioned, the following classes, the attendance upon which is necessarily limited, are open to those who have entered for either the general or surgical course upon payment of an additional fee of one guinea in each instance: Bacteriology, diseases of the blood, diseases of the ear, nose, and throat; errors of refraction, gynaecology, histological methods employed in medical diagnosis, ophthalmoscopy, *x* ray, electrical, and radium work. A series of special lectures, a number of which will deal with the progress of medicine in its various departments during the preceding ten years, has also been arranged. These lectures are open to all graduates attending either the general or surgical course, as well as to local practitioners. One lecture of this series will be delivered daily. The surgical course will also commence on September 4th. It will include classes upon surgical anatomy, surgical pathology, histological methods applied to surgery and operative surgery, in addition to specially arranged daily surgical clinics. So far as possible the same department of regional surgery will be dealt with simultaneously in the various classes, while the subject matter of the daily clinics and ward visits will, whenever possible, be arranged to correspond. Graduates entering for the surgical course may attend alternatively any of the classes included under the general course. The entries for the course will be limited to twenty-five, and the fee will be ten guineas.

The course on internal medicine will commence on Monday, August 1st, and occupy four weeks. The course will comprise classes upon medical applied anatomy, haematology, bacteriology, the examination of the heart, the examination of the nervous system, the examination of urine and digestive products, and the examination of sick children, in addition to series of clinics upon diseases of the heart, lungs, blood and ductless glands, nervous system, stomach and kidneys, general diseases and abdomen. The entries for the course will be limited to twenty-five, and the fee will be ten guineas.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

HEALTH OF BELFAST.

AT the monthly meeting of the Belfast City Council on December 1st, the Medical Officer of Health reported that 102 cases of tuberculosis of the lung had been notified during the previous three weeks, pursuant to the Tuberculosis Prevention (Ireland) Act, 1908, Part I of which had been adopted by the Council. As this was the first monthly meeting after the time fixed for the commencement of notification, many of the cases were chronic, and the numbers would be smaller in future.

At the same meeting it was decided to approach the Local Government Board to obtain a loan of £35,000 to carry out various improvement works and sanitary measures, such as removing the mussel beds from the foreshores of the lough; also for a loan of £90,000 to clear insanitary areas under the Housing Acts. It was expected that a revenue covering the cost would be procured in the latter case. Much work would thus be provided for the unemployed during the winter.

DISPENSARY DOCTORS AND CONSULTATIONS.

Some of the guardians of the Monaghan Union have peculiar ideas about medical matters. Not long since

the board passed a resolution that any of their medical officers requiring medical assistance in a dispensary case should call in no one but a medical officer of the union. Dr. Elliott had the temerity to break through this order, and having a bad case near the town of Clones he called in a Clones doctor to assist him; when the bill came in there was some very tall talk about his presumption in setting at naught the order of his masters, and he was called on to furnish an explanation. This he gave in an admirable letter, asking the guardians "Whether, supposing I am attending a case a couple of miles from Clones or Ballybay, situate in other unions, and ten miles from Monaghan, am I to say to the husband of my patient, 'Start to Monaghan and get a doctor; if you hurry you may have him here in five or six hours; your wife will be dead long before that, and we could get assistance and save her life close at hand, but the Monaghan guardians have arranged, because you are a poor man, moreover because the medical man near at hand does not pay rates in the Monaghan Union, your wife is so to die.'"

To the credit of the majority of the Monaghan board they approved the action of Dr. Elliott, and gave notice to rescind the objectionable order, but not before one guardian had proposed that, though the board should let the matter pass for the present, the letter should be kept in remembrance against him; while another said Dr. Elliott wanted to be the great "I am," and "monarch of all I survey." Truly the lot of the Irish dispensary doctor is hard. Had Dr. Elliott acted upon the ridiculous order of the guardians he would have been severely and properly censured by the Local Government Board if the patient had died; but having done the right thing, some of these persons, as long as they are members of the board, will have their knives in him, to continue the metaphor of one member, who said that Dr. Elliott in his letter "jags as far as he can."

England and Wales.

[From Our Special Correspondents.]

MANCHESTER AND DISTRICT.

The Manchester Royal Infirmary and Medical Women.

Last January the Chairman of the Governors of the Manchester Royal Infirmary assured a deputation of medical women that the board was in full sympathy with their request that the resident appointments at the infirmary should be thrown open to medical women, as the medical board had twice recommended it, but that owing to lack of accommodation in the new building it was impossible to acquiesce at present. Some correspondence followed in the Manchester press, including a strongly worded letter from Judge Parry, and the chairman explained that the board had not fully considered the general subject and that no conclusion had been arrived at owing to the difficulty of providing accommodation. A special committee was appointed to consider the matter in all its aspects, and the committee's report was presented to the board last week. There was a full attendance, and the chairman, Sir William Cobbett, said the report as first drawn up had been amended by the House Committee, and had subsequently received the unanimous approval of the special committee. The adoption of the report was proposed by the chairman, seconded by the Dean of Manchester (Bishop Welldon), and carried. The report is as follows:

Report of the Committee on the Appointment of Medical Women to Resident Posts at the Infirmary.

1. These appointments have been pressed upon the Board of Management upon two grounds. (1) That female students at medical school pay the same fees as male students; and, therefore, ought, after qualifying, to have the same privileges, and all the opportunities afforded to men of perfecting themselves in their profession. (2) That resident posts should be thrown open to public competition, in which medical women should be eligible equally with men.

2. It is to be observed that although female students pay the same fees as male students they are aware when they enter upon their studentship of the privileges which the medical school and the infirmary offer, and they ought not to expect to enjoy privileges no prospect of which has been held out to them. That it is desirable that female students should, after qualifying, have every opportunity of perfecting themselves in the practice of their profession is undeniable, but it is a matter for grave consideration whether these opportunities can be extended by appointing them to resident posts with due regard to the interests of the infirmary.

3. The subject cannot, however, be disposed of, even if it were desirable so to dispose of it, by the admission of the female students of our medical school who have qualified to the candidature for resident posts. In the last nine years—that is, from 1901 to September, 1909, both inclusive—the number of female students registered at the infirmary is 17 (an average of less than 2 per annum), of whom 10 have qualified, 1 has not persevered, and 6 are still in attendance. In the year 1909, 38 male students and 2 female students qualified. There are now in attendance at the infirmary 179 male students and 6 female students. (We omit from these figures dental students.) It could seldom happen, therefore, that the board would be in a position to make an appointment from among the qualified female students of our own medical school.

4. We therefore proceed to consider the desirability of admitting medical women generally to compete for resident posts.

(*a*) There are at present 453 patients in the infirmary, of whom 249 are men and 204 women—that is, a proportion of 1.22 men to 1 woman. There are 18 resident posts, and there will ultimately be 20.

(*b*) It is impossible to foresee to what extent these posts may be filled by medical women if they are admitted to compete for them, but it is abundantly clear that if they are admitted to compete the board must provide accommodation of substantial extent to meet the contingency of the appointment of several women. The bedroom and sitting-room accommodation will require to be so arranged as to be separated from similar accommodation for men residents, and separate messing and common rooms will be required. It will be necessary to appoint a lady assistant medical officer to take direct and immediate supervision of the women residents, and for her also proper accommodation must be provided. The accommodation required cannot be provided in the existing building, and we are satisfied for the foregoing reasons that if medical women are admitted to compete for resident medical posts the board must be prepared to make substantial structural additions to the existing buildings at considerable expense and to rearrange the existing staff and its duties. These additions to staff and building would be a serious expense to the infirmary both on revenue and capital accounts.

(*c*) So far as we have been able to ascertain, no male patients and very few female patients prefer to be medically attended by a woman, and we cannot learn that there is amongst the patients any desire for a change.

(*d*) We are of opinion that medical women ought not to have charge of male wards. In the surgical wards there are things to be done for men which a woman cannot practically do, and in both medical and surgical wards there are things to be asked and told which a woman cannot ask and would not be told. A medical woman is, therefore, not so useful an officer in a general hospital as a medical man.

(*e*) We do not find that medical women have in general been appointed to resident posts in general hospitals. In the United Kingdom there are only two general hospitals with medical schools attached in which such appointments have been made, and one of these is the Royal Free Hospital, London, one of the main objects of which is the employment of medical women.

5. We have arrived at the conclusion that it is undesirable to appoint medical women to resident posts in the infirmary upon the following grounds:

That in a general hospital the services of medical women are not, upon the whole, as valuable and beneficial as those of men.

That such appointments would entail substantial building addition, and additions to and a rearrangement of the staff, involving considerable expense, and that the board would not be justified in incurring such expenses for the purpose of an experimental change which we are of opinion would not be of advantage to the institution.

It will be seen from the report that in addition to the reasons given to the deputation in January, which referred only to the want of accommodation, the board now goes much further and argues against the general suitability of women for resident posts in a general hospital. It is impossible to say what the effect on the medical school will be so far as its attractiveness to women medical students is concerned, but it is quite certain that the report will not be allowed to pass without severe criticism. The *Manchester*

Guardian has already had a stringent leading article saying that the report "shows a prejudice which has no justification in reason, and will be strongly and justly resented," and that the committee "had either exaggerated the difficulty of accommodation to support a prejudice that it does not like to avow openly, or else had called in a prejudice to reinforce the difficulty of finding rooms"; and further, that "the unanimity of the governors does not mend matters, but only enlarges the scandal."

CANCER RESEARCH AT THE ROYAL INFIRMARY.

At the same meeting of the board of governors of the Royal Infirmary it was announced that a sum of £100 with a further promise of £50 was available, through Dr. Brockbank, to encourage the bedside study of cancer. It was suggested that the fund should be used to defray partly or wholly the cost of the study of cancer in the wards and clinical laboratories of the infirmary, and, if sufficient funds should be forthcoming, to appoint a special director to superintend workers in the subject, who should be at liberty to carry out part of their research in other hospitals. The opinion was expressed that no experiments on patients should be allowed, and that a sum of £150 a year might be sufficient to cover the cost of three or four workers without salaries but that it was premature to appoint a paid director. The board would expect that special voluntary contributions would be sought independently of the general funds of the infirmary. A disused ward on the surgical side might be fitted up at a cost of £50. A special committee was appointed to consider the matter.

THE MANCHESTER BOARD OF GUARDIANS AND THE POOR LAW COMMISSION.

The Chairman of the Manchester Board of Guardians last week read a report on the recent conference of the Poor Law Unions Association, where the principal subject under discussion was the Report of the Poor Law Commission. The president of the conference had drawn attention to the onesidedness of the Commission, evidence having been accepted against boards of guardians without cross-examination, and the president said that the report was the work of theorists and not practical administrators. As Dr. Downes had said, the present boards would be able to do everything possible to improve the Poor Law if the power were granted to them, and a recent report of the Local Government Board showed that during the last fifty years, while the number of paupers had gone down from 50 to nearly 20 per 1,000 of population, the workhouses were now no longer looked on with the dread of former times. The workhouse hospitals, too, could now hold their own with the best hospitals of the country, and it was the same with the special Poor Law schools, while the increase in cost really represented increased efficiency. The Minority Report, he thought, was utterly impracticable, while the Majority Report, with its suggestion to substitute for guardians a body composed of county councillors with co-opted members, would never seriously be taken up. The conference had passed a resolution suggesting the establishment of district committees to take steps to defeat those parts of the reports which advocated the abolition of boards of guardians. He drew special attention to the activity of Mrs. Sidney Webb in endeavouring, by holding meetings all over the country, to get support for the Minority Report, and he thought that no time should be lost in getting the district committees to work. They would have a far better chance now than if they waited till the opinion of the country was formed.

THE CHRISTIE HOSPITAL.

The report presented to the annual meeting of the Christie Hospital (Cancer Pavilion and Home), over which the Lord Mayor presided, stated that the number of cases treated during the year had been 110 in-patients and 68 out-patients, a total of 178, against 153 in 1907. The contributions from patients and their friends amounted to £168, all of which consisted of voluntary payments. Of the 136 new cases, 74 were inhabitants of Manchester; the youngest patient was 18 and the oldest 77, the average age being 50.8 years. The pressure on the beds for females had been so great during the year that a ward kitchen had been converted into an operation ward. Of the new cases, 9 were already recurrent after operation when first admitted. During the year the hospital had provided a permanent home for 63 advanced cases which were beyond hope of cure, and were taken in simply to alleviate suffering during the remainder of life. All of these died sooner or later in the hospital, and the high death-rate on this account could not be compared with the death-rate in general hospitals, where incurable patients were generally discharged after a limited period of treatment. Professor Wild spoke of the value of co-ordinating the results of cases at different hospitals, and welcomed the establishment of a new fund for cancer research at the Royal Infirmary. At the cancer hospital the opportunity of seeing the early stages of the disease was not afforded, for only when it was advanced did patients come there. The investigations made at the hospital were mainly as to the course and nature of the disease, and little could be done to inquire into the causes. As to treatment, during the past seventeen years between twenty and thirty different methods had been tried, but unfortunately none of them had borne out the enthusiastic claims of their discoverers. The treatment by pepsins or ferments had had no success, and was now quite dead. The staff had been willing to test all sorts of treatment, provided that no harm could be done to the patients and that there was any reasonable ground for expecting success, but the principal part of the work had been to alleviate suffering.

Mr. G. A. Wright, one of the honorary surgeons, laid emphasis on the necessity for cases applying in the early stages when cure might be possible. One difficulty, however, was that so many patients would go to quacks instead of qualified doctors. He knew one quack living not far away who had had a woman going to him for cancer who had only a harmless wart on the tongue, and he let her go about with a bottle with a red label—"cancer lotion," for application to the tongue. It was stated that the financial position of the hospital was satisfactory—a most unusual statement to be made about any Manchester hospital.

THE HOSPITAL SUNDAY FUND.

The annual report of the Manchester and Salford Hospital Sunday Fund showed that the receipts for last year amounted to £3,607, which is about £51 more than in the previous year, while the amount distributed was £3,400, an increase of £100. The Lord Mayor said he was thoroughly dissatisfied with the result, as the amount collected for the various charities, with their increasing number of beds, was far too small. He intended to do all he could to make the fund more effective. The expenses of collecting amounted to £232, which he thought might be reduced. He wished to avoid the necessity of the hospitals depending on the rates, for, though he did not wish to criticize municipal work, he thought that charitable institutions could be carried on more economically and more sympathetically by voluntary workers. The Mayor of Salford agreed that the amount collected was ridiculously small for Manchester and Salford. The Dean of Manchester thought that the time of the year—February—chosen for the collections was not the best. The one thing that would give him pleasure, if ever the hospitals came on the rates, was that those citizens who now escaped responsibility would no longer escape. The Rev. D. Dorrity said he was one of the growing class who thought that the State should be responsible for the support of hospitals, and that opinion was responsible for the small sums collected. He did not suppose the hospitals would be better managed than at present, but they would be better placed financially. It was resolved that the institutions to benefit by the fund should be the same as last year, and an enlarged committee was appointed.

The Manchester Ear Hospital.

At the annual meeting of the Manchester Ear Hospital it was announced that the new hospital in Grosvenor Square would be ready for occupation next March. It will have 24 beds, which is twice as many as there are in the present hospital in John Street, and the equipment will be much superior. The cost of the new hospital is estimated at about £6,700, of which £2,100 is still required. The annual report showed that the number of out-patients treated during the year was 3,844, which is about the same as last year, though the visits they paid to the hospital were 17,395, an increase of 1,278. The in-patients numbered 382, against 359 last year. All the district round Manchester contributed patients, while some came from as far away as Gateshead and Burton. There had been a deficit on the year's working of £151, making a total of £2,600, which had had to be taken from capital. The hospital was conducted most economically, as the cost per patient averaged only 6s., and worked out on the number of attendances was only 1s. a head.

A complaint was made by Councillor Allison, as representative of the Manchester and Salford Co-operative Society, that some of their members had been charged fees for attendance. The Chairman said that no charges were made to any one. Dr. Milligan also emphatically stated that it never had been the policy of the hospital to charge fees, though, of course, contributions were accepted from patients who desired to give something. The object of the hospital was primarily to relieve the necessitous poor. In reply to a question, Dr. Milligan said that since the medical inspection of school children had come into force the ears of school children had been examined, as well as their eyes and teeth. This medical inspection was giving all the hospitals far more work to do, and the difficulty of coping with the children's cases was becoming serious. He was afraid the hospitals were abused on account of this inspection. A number of children were packed off to the Ear Hospital to be treated free, quite regardless of the ability of their parents to pay for treatment, and some hospitals had been compelled to refuse to accept more than a certain percentage of the children sent to them.

The Langho Inebriates Homes.

At a meeting of the Lancashire Inebriates Acts Board, Alderman Travis-Clegg was re-elected chairman and Mr. T. Burke vice-chairman. The chairman said that the criticisms passed on the homes during the year had somewhat increased the difficulties the board had to encounter, but he thought it had now established the economy of its administration. The charge to the constituent authorities had been reduced from 7s. to 5s. 3d. a week per patient. The total accommodation of 185 included the punishment cells and the infirmary beds, and there were now 157 patients from Lancashire alone; the House Committee had recommended that accommodation for an extra 24 should be provided at once. Recently, however, the London County Council had made application for the committee to take 120 women from the London area; it was proposed to charge 7s. a week each, to be increased if the Government grant of 10s. 6d. were reduced. The agreement would be for 120 women for six years, and if the London County Council accepted the offer extra accommodation for 142 patients could be provided by altering each of the six blocks of building at a cost of from £700 to £800 a block; the charge would in the six years repay the board both for the capital outlay and the maintenance. Many of the Lancashire authorities were not taking advantage of the facilities for which they would have to pay, and the committee hoped that the example of London would stimulate them. No inmate was ever discharged as cured, but only because the term of committal had expired, and the value of the treatment could not be judged by the percentage of relapses. There was no doubt that the committing authorities were finding that it was more economical to send these unfortunate women to the reformatory for three years, where they would be properly controlled, given useful employment, and removed from their usual haunts, than to give them short terms of imprisonment. Since last May the industrial earnings of the inmates amounted to £544. It was resolved to alter one block of buildings at once, and, subject to a satisfactory agreement with the London County Council, to enlarge the other blocks also.

LONDON.

The Medical Staff of the Education Committee.

On the agenda of the Education Committee of the London County Council on December 8th appeared a report by the General Purposes Subcommittee recommending the appointment of an additional assistant medical officer (education) at a commencing salary of £500 a year, rising by annual increments of £50 to £700 a year. The subcommittee stated that when Dr. Kerr was appointed by the London School Board his duties were to supervise the medical work generally, conduct correspondence, examine male candidates for employment, visit schools where outbreaks of infectious disease occurred, conduct inquiries, and give advice. It was possible to carry out these duties in 1902, but there had been a rapid expansion since, and it was now quite impossible for Dr. Kerr effectively to supervise the work without further assistance. The staff requiring superintendence numbered in 1902: medical, 3; nursing, 1; clerical, 4. In 1909 the corresponding figures were 68, 54, and 28. Even these figures did not adequately represent the actual increase in the scope of the work. Various schemes had been developed since 1902, and were now in full working order, and in all departments the amount of detail was far greater. The Council now undertook the cleansing (heads, bodies and clothes) of the children, and examined their vision; it had established a laboratory for the bacteriological control of diphtheria; it exercised control of ringworm diagnosis; undertook inquiries into measles and scarlet fever, and with regard to blindness, deafness, aphasia, etc.; the medical examination of all scholarship candidates and the inspection of students in training colleges, pupil teachers and the scholars of secondary and trade schools. The medical officer had to supervise all this work and many other matters too numerous to mention, and it was now almost impossible for him to master many recent developments, his whole time being occupied by the work already undertaken. The work of care committees, the feeding of children, questions of physical exercises and teaching of hygiene, all required more thorough organization, but the medical officer could not undertake it without further assistance. The subcommittee thought the superintendence of the outside medical staff was almost one officer's work, and that the doctors and nurses should be seen at work not only in the statutory medical inspection, but also in their other duties in connexion with cleansing, special schools, etc. The intimate relation in which the medical side of the Council's work had been brought recently with the sanitary work of the borough councils had necessitated a great amount of personal visiting and conferences with the medical officers of health of the various boroughs. The only full-time assistant medical officer was appointed in 1903, prior to the passing of the Education (Administrative Provisions) and Children Acts. The consideration of the report was postponed.

BIRMINGHAM.

Health Visitors.

A good account of the work of the lady health visitors of Birmingham has been given in *The City Aid Review* by Dr. Robertson, the Medical Officer of Health. He states that the first health visitors were appointed in Birmingham in 1899, and that their number has been gradually increased, until now the city is divided into fifteen districts, each worked by

one health visitor, the whole being supervised by a lady superintendent. The first part of their work has to do with the feeding and rearing of young infants and children. The visits are welcomed by the people, and all over the city the health visitors are looked upon as friends and not as inquisitive inspectors. The necessary information as to where a baby is born is obtained by means of the Notification of Births Act. The rate of infant mortality in Birmingham is declining to a small extent, and this is probably largely due to the work of the health visitors. In one of the poorest districts in the city a special experiment is being tried of instructing mothers by frequent visits. A woman doctor is employed who makes the first visit, and any necessary subsequent visits, while all the ordinary subsequent visits are made by the health visitors. Without any inducement other than their desire for the babies' welfare the mothers go willingly to a centre to show them, to have them weighed, and to get any advice about their ailments. In the second group of duties the health visitors do a good work in advising the treatment of children who are sent to school in a verminous condition, or suffering from scabies, impetigo, or ringworm. The necessary information is sent to the school teachers. When diseases such as measles, whooping-cough, chicken-pox, and mumps are prevalent, the health visitors can do a good deal by visiting in the affected districts, and giving instructions as to how best to prevent the spread of these diseases and what to do if they should occur. The third division of the work is that relating to the systematic house-to-house inspection in the poorest districts of the city. Each room in the houses visited is inspected from cellar to attic. Very seldom, if ever, does the tenant demur to these inspections, a fact which proves that the health visitors show discretion. In a very large number of houses the regular visits by health visitors have produced most excellent results. Many cases of nuisances arising from structural defects are found out, and notices are sent to the proper department to deal with them. A large number of cases of poverty, of ragged and bootless children, and of children requiring special treatment, are met with, and each is advised as to the proper charity or the proper hospital to apply to, or is sent to the family doctor. Two special inspectors are employed to visit cases of consumption. During the winter months lectures are given by the health visitors at mothers' meetings and girls' clubs when desired. Between 40,000 and 50,000 visits are paid annually, and it is found that approximately 2,000 houses are in a more or less dirty condition, and 400 or 500 instances of cellars filled with filth are discovered. Between 2,000 and 3,000 instances occur every year of storing bedroom slops for long periods in bedrooms. In a large number of instances, often reaching over 4,000 a year, it is found that bedroom windows are not opened and the chimneys are stopped up. The existence of overcrowding in bedrooms and in dwellings is also ascertained by the visits of the health visitors. During 1908 no less than 7,720 infants were found to be unsuitably fed, and advice was given in every case. A large number of recommendations are made annually that medical advice be sought, and in a number of other ways really good work is being done by the visits of the lady health visitors.

India.

MEDICAL REGISTRATION.

THE following inquiry was addressed on August 4th, 1909, to the Honorary Secretary of the Grant College Medical Society, Bombay.

I have the honour, by direction of the Surgeon-General, to request you to be so good as to favour him at an early date with the views of the Grant Medical College Society on (1) the question of the necessity or advisability of passing a Medical Registration Act for the Bombay Presidency, or in alternative, for the whole of India to registration and the protection of legitimate degrees and diplomas; (2) the scope of such legislation; (3) the extent of its application; (4) the question of who should be admitted to registration if a register be instituted; (5) the constitution of the body to whom the care of the register should be entrusted and its powers; and (6) any other points which may appear to bear upon the question generally.

Captain W. M. HOUSTON, M.B., I.M.S.,
Personal Assistant to the Surgeon-General
with the Government of Bombay.

The following reply, adopted by the society at its meeting on October 27th, 1909, was sent to the Surgeon-General on the following day by Drs. A. D. Mody and K. M. Dubash, Honorary Secretaries of the Grant College Medical Society.

We have the honour, by direction of the Grant College Medical Society, to send the following replies to the queries contained in your letter No. B-6488 of 1909, dated Poona, 4th August, 1909:—

1. It is necessary as well as desirable that a Medical Registration Act be passed for the whole of India, including Burmah, for registration and protection of legitimate medical Degrees granted by the Indian Universities, and of such Diplomas as are recognizable by the General Medical Council of Great Britain and Ireland.

2. The scope of the legislation to be similar to that of th Registration Act of Great Britain and Ireland, such as,

(*a*) Full recognition of medical, lunacy, and death certificates by Courts of law and public bodies, and under factory and other Acts.

(*b*) Power to sue in courts for medical attendance, and other medical charges to be exclusively confined to Registered practitioners.

3. The Act should be applicable to the whole of India, including Burmah, and also to such countries as would reciprocate with us, but if it is not feasible to apply it to the whole of India, it may be made applicable to Bombay Presidency at least.

4. The act should apply to persons passing medical degrees of the Indian Universities, and the holders of such degrees and diplomas as are recognizable by the General Medical Council of Great Britain and Ireland.

5. There should be a General Medical Council for the whole of India, including Burmah, constituted solely of Registered Medical men as follows:

(*a*) Three members nominated by Government.
(*b*) One representative of each University in India.
(*c*) Two members, each elected by the Registered Medical practitioners, residing within Calcutta, Madras and Bombay University Circles.
(*d*) One each elected by the Registered Medical practitioners residing in the Punjab and Allahabad University Circles.
(*e*) One member elected by the Registered Medical practitioners residing in Burmah.
(*f*) Branch Councils may be created for each Presidency or Province consisting of those members of the General Medical Council who belong to that particular Presidency or Province.

6. The powers of the Indian Medical Council should be such as those possessed by the General Medical Council of Great Britain and Ireland, with such modifications as would be necessitated by the peculiar circumstances existing in this country.

PLAGUE IN THE UNITED PROVINCES.

A special report, prepared by the Inspector-General of Civil Hospitals, Colonel R. D. Murray, I.M.S., records a decided and satisfactory decrease of plague in the United Provinces. The report deals with two periods—one of six months ending June 30th, 1908, and one of twelve months ending June 30th, 1909. The plague year has very properly been altered from the calendar to the epidemic. In the former period 19,146 deaths occurred, and in the latter 13,814. The disease almost disappeared after June, 1908, until a recrudescence commenced in November of that year. The maximum number of cases occurred in March in both years; in 1908 it was 6,825, and in 1909 it was 4,321. The disease disappeared after June, 1909, and special efforts are being made to prevent or minimize recurrence. A special staff for prevention and inoculation has been employed but has been greatly reduced. The measures resorted to for combating the disease were mainly evacuation, inoculation, and rat destruction, disinfection being employed to some extent. In the first period 159,308 inoculations were done, and in the second 153,902. The people seem to accept inoculation more readily, and several illustrations are given indicating the benefit in terms of reduced incidence and case mortality conferred by the measure. Some statistics to the same effect are quoted from papers read at the Bombay Medical Congress.

Correspondence.

THE 1910 MEETING—FOREIGN VISITORS.

SIR,—At an international congress some years back I found myself in a Pullman carriage with several Frenchmen and two Germans. Amongst the various subjects we discussed was that of the languages in which the papers were read. We all agreed that if a man spoke in his own language (whether English, French, German, or Italian) he could be followed more or less well by the majority of those present, but that a foreigner speaking in the language of the country he was in was, with very few exceptions, unintelligible both to his compatriots and to those whose language he was endeavouring to speak. One Frenchman told me that there was only one English doctor who could make a decent speech in French, while another suggested that the men who attended foreign "domestic" meetings could as a rule be divided into two classes—bores who had exhausted the patience of their own compatriots, and those who vaunted their own wares—mostly unpleasant waters!

Of recent years we have had an increasing number of foreigners present at our Annual Meetings, and as by some rule, written or unwritten, they have to speak in English, it is exceedingly difficult to follow them, and much valuable time is wasted. I would suggest that if selected foreigners are to be present at the 1910 meeting, their papers should be put into understandable English by secretaries of Sections and read by them. The reply should also be read by a secretary. Personally, I think that the meetings of the British Medical Association should be purely "domestic" (the word is not mine but seems suitable), and that few, if any, foreigners should be present. At the International Medical Congress in three years' time, we shall, I hope, royally entertain a large number.—I am, etc.,

December 3rd. A. T. W.

THE ASSOCIATION AND THE PROFESSION.

SIR,—A great strategist once said that he thought he had noticed that the Lord was usually found fighting on the side of big battalions. I think he was correct in his observations, and therefore I am anxious to see the ranks of the British Medical Association increased from 21,000 to 31,000 at least, as soon as possible; for I recognize conflicts in front of us—conflicts the results of which will have a very disastrous effect upon medical practice if we are worsted.

This is a golden moment for entering upon a plan of campaign to effect this increase of membership; the weeks before the end of the year is *the* time for recruiting; if we wait until the non-members have agreed to subscribe for other medical journals they are lost to us for another year. Again, it is a golden moment because a General Parliamentary Election is imminent, previous to which we ought to approach candidates by deputation in every constituency, with a *précis* of the Medical Acts Amendment Bill, etc., in our hands—not forgetting, by the way, to remind all such candidates that, in passing the Midwives Act, the Legislature has already subscribed to the principle that His Majesty's lieges should be treated only by trained, examined, and registered practitioners, and that all others attempting to practise should be penalized by the State. The fact that the general meeting of the Association is to be held in London next year also makes the present a particularly favourable period for opening a campaign.

I would suggest that every member vows to obtain one or more new members; this, in my experience, is best done by personal interview, but should be done *now*. The Council sends out copies of the JOURNAL periodically to non-members. This is good; but spade-work is needed also. I find the personal appeal—preferably with a form for application for membership in the pocket—leads to direct results, especially if the following points be emphasized:

The Association already numbers over 21,000 members. Its possibilities in the future as a medico-political machine; its organ, the BRITISH MEDICAL JOURNAL, is edited and issued in the interests of its members, and is *not* found on the tables of public libraries; its contents include "an Epitome of Current Medical Literature," "Warning Notices," etc.; the issue to the public of the work *Secret Remedies*—which, I trust, is now on the waiting-room table of every member—might also be referred to.

I am induced to send this appeal because I am sure all is not well with the profession of medicine, and I regard its future as gloomy. Believing still in the proverb, "Heaven helps those who help themselves," I say let us make this Association the solid mass of the profession, and then we shall have irresistible weight in approaching the Legislature or other public bodies, to the advancement of our interests and the defence of our rights. Once more, spade work! Do it now!—I am, etc.,

November 30th. F.R.C.S.

PRESCRIBER AND DISPENSER.

SIR,—Although the strange resolution passed on November 2nd, at the meeting of the Chelsea Division, concerning editorial articles in the JOURNAL is to come before the Representative Meeting, and will, no doubt, be discussed there, it seems to me a matter that merits a little wider discussion by individual members of the Association.

In moving his resolution Dr. Williams is reported (SUPPLEMENT, November 20th, p. 325) to have "called attention to instances in which editorial articles and comments in the JOURNAL had been inimical to the interests of the majority of the profession." Having made this assertion, Dr. Williams instanced one article, which, he said, "disapproved of medical men dispensing their own medicine," and expressed his belief that this view was not shared by the majority of the Association.

Whether or not Dr. Williams is right in holding this belief is a matter which could only be finally settled by taking a plébiscite of the profession. But the only recent article at all answering his description is one entitled "Prescriber and Dispenser," on p. 488 of the issue of August 21st. I find that this is primarily an article dealing with a paper read at a meeting of the Pharmaceutical Society by Mr. Donald McEwan, and is largely a reply to certain friendly strictures made on the profession by that gentleman. The writer, however, does begin by expressing a belief totally opposed to that of Dr. Williams. "If the members of the profession were polled," he says, "we have little doubt that a large majority would be in favour of release from the troublesome burden and the inevitable commercialism of dispensing." Lower down some of the evils of dispensing are pointed out; the fact that medical men are driven into the position of accepting these evils is lamented, and combination is suggested as the only remedy. There is not a word of condemnation of those medical men who do dispense. Curiously enough the correspondence column of the next issue contains two letters strongly endorsing the views expressed in the article, and one of your correspondents, Dr. B. G. Morison, even remarks that "there are not many medical men who will not endorse your statements." My own experience of over thirteen years' practice in Lancashire convinces me that a large majority of my colleagues in the North of England would be thankful to escape the drudgery of dispensing, and from what to many seems the loss of professional status involved in it, if only some system could be evolved which would not involve too heavy a pecuniary loss.—I am, etc.,

Leigh, Nov. 27th. FRED. E. WYNNE, M.B.

PROPOSED LEGISLATION ON ANAESTHETICS.

SIR,—The leading article on the above subject in your issue of December 4th says: "The General Medical Council, therefore, does not think fresh legislation on the administration of anaesthetics desirable." Surely this is an error, for "Conclusion 4" of the report of the Anaesthetics Committee, which report was adopted by the Council, distinctly states that it is desirable in the public interest that the administration of anaesthetics should be restricted by law. This pronouncement of the Council, which is the most important they have yet made on the subject, is one for which we have anxiously been waiting, and one which will be received with satisfaction not only by the whole profession but by the public. Though there are many who hoped that the Council might have proposed reforms of a somewhat wider scope, the medical

profession will, I think, agree that should their present proposals meet with the approval of the Departmental Committee now sitting, and should an Anaesthetics Act embodying them be passed, a very great step will have been achieved, and one which will have the effect of reducing the risks of anaesthetics and of restoring public confidence. In order that the views of the General Medical Council upon this important matter may thoroughly be grasped it is necessary to read the report of their Anaesthetics Committee as a whole,[1] and if this be done your readers will, I think, obtain a different impression to that conveyed by the leading article to which I have referred.—I am, etc.,

London, W., Dec. 6th. FREDERIC HEWITT.

AMBULANCE LECTURES AND VOLUNTARY AID DETACHMENTS.

SIR,—The letter of S. Hillier and the editorial remarks on scouting quinsey in your last issue are not entirely unconnected. To take the ambulance lectures first: I think your correspondent is perfectly right in his objection to giving courses of ambulance lectures for the War Office free of charge. It is not uncommon to find people ready to show their charity or their patriotism at some one else's expense. As one of the earliest lecturers on first aid and nursing for the St. John Ambulance Association, I always, on principle, accepted one guinea a lecture, which, I may add, was always cheerfully paid. Our charity may be bestowed in other ways more in accordance with our inclinations and our knowledge of where it is needed most.

As regards the Boy Scouts, it must be regretted that such mischievous directions should have been mixed up with their otherwise excellent rules, and I feel sure that Sir Robert Baden-Powell would be the first to erase them, his one idea being to raise up among the young people of this country a body at once disciplined, honourable, useful, and patriotic. No nobler or more practical scheme has ever been inaugurated for bringing back the British people to a true sense of citizenship and nationhood; but is not the intrusion of absurd and useless rules of treatment common to the teaching of first aid and nursing lectures all over the country? Is it realized that nine out of ten of those who attend these lectures approach the subject for the first time, and are totally ignorant of Latin? Why, then, burthen their puzzled brains with scientific terms which either get jumbled up in their memories or, happily, forgotten? A thorough knowledge of a few simple and practical expedients would be of infinitely more value, and, I may add, more available in case of emergency, if not mixed up with the detail which is now too often demanded (and therefore produced to order) by the examiners in these subjects.

To protect a broken bone one does not require a full knowledge of the skeleton; to stop serious bleeding one does not need to know the names of all the main arteries in the body, or of the valves of the heart. A little knowledge—or, as I would rather interpret it, imperfect knowledge—of many things is a dangerous thing, while a thorough and practical acquaintance with a few simple expedients may save many lives. Words, and especially scientific terms, slip easily out of the memory of the ordinary man, while a practical illustration of what can be done in drowning, serious bleeding from artery or vein, choking, fits of various kinds, broken bone, and many other emergencies which common sense will suggest, live in the memory, and are immediately available, when needed, without the assistance of a notebook.—I am, etc.,

December 4th. M.B. OXON.

SIR,—The original letter of November 6th by the Representative of the Cleveland Division on the above subject has been so far discussed to my satisfaction in the columns of November 13th, 27th, and December 4th as to seem to require no answer to the letter of the "R.A.M.C. Major (Ret.)" in the issue of December 4th, except to say that civil and military manners differ.—I am, etc.,

THE VICE-PRESIDENT, THE WINCHESTER
December 4th. DIVISION.

[1] See SUPPLEMENT, December 4th, 1909, p. 360.

A PORTABLE OXYGEN GENERATOR AND INHALER.

SIR,—In producing a portable and practical oxygen generator Dr. Leonard Hill has conferred a great boon upon anaesthetists, and I for one hasten to thank him for it.

In the theatres of hospitals and the best class nursing homes oxygen in cylinders is, of course, always provided ready for immediate use, but in many nursing homes, and in all private houses, it is conspicuous by its absence. I have for years at odd times pondered over the possibility of generating it for myself, but have had neither the time nor scientific knowledge necessary to think out a practical scheme. For a time I carried oxygen in a gas cylinder, but found this too heavy for convenience. Now, in Dr. L. Hill's apparatus comes the very thing I have wanted, and, curiously, this use for it does not seem to have occurred to him.

Dr. Hill will confer a further favour if he can assure us that the heat developed will not be a source of danger in the presence of ether vapour, as an anaesthetist might well be too busily engaged to superintend the cooling of the bag. I presume I may take it for granted that the apparatus could be fitted to an ordinary face-piece for administration to an unconscious patient.—I am, etc.,

London, W., Nov. 26th. G. A. H. BARTON.

INTERMITTENT CLOSING OF CEREBRAL ARTERIES.

SIR,—The recent discussion on the subject of temporary contraction of cerebral arteries interested me considerably as it seemed to account for some hitherto very obscure cases.

I was reminded of it a few days ago by a visit from a patient I had not seen for a couple of years. On her first visit in 1907, she stated that about a fortnight previously she had been suddenly seized with clonic spasm on the right side with "numbness." The mouth on that occasion only was drawn to one side. This attack and several subsequent ones passed off quickly and she felt no ill effects. Up to the time I saw her she had had several similar seizures. Careful examination failed to discover any cause. On her recent visit she stated that these attacks had continued during the two years, but were becoming more frequent and were always immediately preceded by profuse sweating for a few moments. Now in this case there is, first, relaxation of the systemic arterioles, and immediately after, as I think, contraction of the cerebral arterioles on the left side. On questioning her I found the sense of heat and sweating was chiefly felt to the right side.

I have seen, as I am sure most other practitioners have, these transient cases of hemiplegia where no cause could be traced unless that vague term "neurasthenia" can by called one. The temporary character of these attacks, and the fact that they leave no permanent traces, seems to me to exclude any organic cerebral lesion, and, so far as I can judge, contraction of the cerebral vessels is a reasonable hypothesis. Why it should be localized is probably as inexplicable as "dead fingers."—I am, etc.,

Cootehill, co. Cavan, Nov. 29th. T. H. MOORHEAD.

THE ORIGIN OF CANCER.

SIR,—Dr. Newbigging's letter (BRITISH MEDICAL JOURNAL, November 13th, p. 1441) is entirely in accordance with my theory, although he says that his views are diametrically opposed to mine. It is not acids generally that I blame, but sulphurous and sulphuric acids in particular. If I am right, the beneficial effects which Dr. Newbigging claims for acetic acid are quite intelligible, since the two are in this respect antagonistic. It is, indeed, to me rather a disquieting fact that SO_2 is now introduced into nearly all wines and preserved fruits simply because it has been found to counteract acetic acid fermentation.

When I am writing, will you allow me to quote a passage from De Bary, which I think may throw an entirely new light on the parasitic theory of cancer, and clear up what are, after all, the only objections to it—namely, that so few actual parasites have been found, that the cancer cell seems itself to be the parasite, and that the heterotype mitosis, which is apparently characteristic of reproductive and germ cells, is also a feature in the multiplication of the

cells of malignant tumours. The Saprolegniae, one of the groups of fungi which live on dead organic matter, are themselves attacked by a parasite known as *Rozella*, the swarm spores of which bore their way into the growing tubes of the fungus. When a spore has effected an entrance in this way it remains visible for a short time in the protoplasm of the tube, and then can no longer be distinguished. It loses its individuality and is lost in the protoplasm of the tube, which at once swells out and divides by transverse walls formed in the same way as in the delimitation of sporangia in normal Saprolegniae. On these surprising effects De Bary makes the following comment:

> If no later investigations bring to light facts at variance with those here given, and this, according to Fischer's statements, is not probable, but cannot, however, be considered to be impossible, the above case is an instance of a parasite surrendering its individuality, so far as that can be recognized morphologically, after its entrance into the host; it becomes changed into a part of its host, and *the two can no longer be distinguished from one another by our present means of investigation. The parasite also communicates new properties to the host*, which is some two hundred times its size, and through them *the host develops into its own parasite*. This transmutation of the host by the parasitic spore which has coalesced with it, though peculiar, is yet *analogous with the fertilizing effect of the spermatozoid on the oösphere* of organisms which in the sexual sense are highly differentiated from one another.—*Comparative Morphology and Biology of the Fungi, Mycetozoa, and Bacteria*, page 395.

The italics are mine, but I think that no one familiar with the cytology of cancer who carefully weighs the italicized words can fail to be impressed with their importance. Here we have a parasite so behaving towards its host that its protoplasm is lost in that of its host, and that the cells of the host become its own parasite. Could anything more closely resemble the conditions of the cancer cell?

It must also be borne in mind that this parasite *Rozella* is closely akin to *Plasmodiophora brassicae*, which causes tumours in plants, and to another known as *Woronina*, the morphology and course of development of all of which are so strange that De Bary himself hesitates whether to class them among the myxomycetes as plants or among the mycetozoa or protozoa as animals. We have also the striking fact that Wade and Ford Robertson detected in carcinomatous tumours organisms morphologically identical with *Plasmodiophora brassicae*, and, as pointed out in my *Theory*, that organism has been proved by the Board of Agriculture to be fostered and encouraged by sulphuric acid manures.

In my little book I have given several instances of what seemed to me a close connexion between sulphurous and sulphuric acids and cancer. Since issuing it I have come across another which is certainly curious. In the new edition of Bryant and Buck's *Surgery* it is stated that scrotal cancer nowadays is found among workers in guano as well as among chimney-sweeps and coal-tar workers. This seems inexplicable until one realizes that the richest deposits of guanos have been largely worked out, and that the stores now largely drawn upon are in many cases compact and rocky in texture, and require now to be disintegrated and treated with sulphuric acid (*Encyclopaedia of Agriculture*, vol. ii, p. 287).

I can only say that if these acids have no connexion with cancer I have stumbled across an extraordinary series of coincidences.

Although I at one time accepted the germ-cell theory, some years of work on the deductive method have convinced me that cancer is due to a parasite of the nature to which I have referred. If this be so, it will certainly ultimately be amenable to treatment. Even as things are, rodent ulcer is curable by the ultra-violet rays. This in itself is strongly suggestive, since amoeboid protozoa react vigorously in red light, whose protoplasmic movements almost cease in rays from the violet end of the spectrum.
—I am, etc.,

Edinburgh, Nov. 29th. C. E. Green.

TUBERCULOSIS IN CHILDREN AND SCHOOL INSPECTION.

Sir,—I read with pleasure the report on the Tuberculosis Congress at Oxford, published in the Supplement to the British Medical Journal of November 20th. I was much interested in the papers which dealt with tuberculosis in children with special reference to school inspection. In this connexion I should like to make some remarks regarding pulmonary tuberculosis and the medical inspection of school children.

In the first place, it may be taken as undoubtedly true that school life plays a part in the increased incidence of tuberculosis in children. In the second place, it is now more generally recognized that chronic tuberculosis of the lungs is more common in children than was formerly supposed. In proof of this witness the *post-mortem* records of children who have died from other causes, but in whom there is evidence of old-standing or healed tuberculous lesions. In view of the fact that acute tuberculosis of the lungs is a dangerous and fatal disease in children, it stands to reason that healed lesions have in all probability resulted from chronic or subacute conditions.

It is fully believed in certain quarters that the medical inspection of school children will afford an excellent means for the early recognition of chronic pulmonary tuberculosis, but I venture to doubt if this new development will at present fulfil anticipations. In my opinion, chronic pulmonary phthisis in children is one of the most difficult diseases to diagnose, and I fail to see how, in the course of a few minutes' examination, it is possible to come to a definite diagnosis. The conflicting evidence in the reports of medical inspectors lends some support to this conclusion. We find that in one district the incidence is stated as 15.4 per cent, while in other districts the figures given are less than 1 per cent. No doubt the incidence will vary in different localities, but for the present the statistics submitted by medical inspectors are not comparable. There is no standard on which the diagnosis can be based, and the figures merely reflect the personal opinions of the medical officers of the respective districts. Until some definite standard is adopted, and until medical inspectors come into line, it is not possible for any reliable and comparable figures to be obtained.

It may be pointed out that there is no one symptom which is pathognomonic, and that there is no single physical sign on which one can definitely base the diagnosis. Even Grancher's phenomenon, which is essentially asymmetry of inspiration, is not infallible, and cannot be considered in any sense as applicable to every case, nor do I think that the association of dullness on percussion, bronchial breathing, and intermittent crepitations is diagnostic of pulmonary phthisis in the child. It is only after weeks, perhaps months, of careful observation that an approximation to the truth can be arrived at.

I would suggest that all cases in which suspicious symptoms are evident or suspicious physical signs detected should be referred to the family practitioner for further examination and observation. Many of these children, who can best be described as "physiologically delicate," are prone to, and may under adverse circumstances develop, pulmonary tuberculosis, and I believe that if we had the means of directly inspecting the lungs, we should find in some a chronic tuberculous focus. My contention is that the medical inspector with the ordinary means of diagnosis at his disposal, based on symptoms and physical signs, cannot with certainty diagnose chronic tuberculosis of the lungs in every case in which it exists. If in the future school clinics are established, and if certain diagnostic aids can then be made use of, more conclusive evidence may be obtained. At the present time I maintain that the means of diagnosis are inadequate, and, further, that a child will be included among, or excluded from, the tuberculous according to the standard adopted by the medical examiner.

These children, who are the subjects of chronic pulmonary tuberculosis, or who are merely "physiologically delicate," are not, indeed, dangerous to others, but they are physically defective, and are, therefore, not able to compete on equal terms with their more fortunate companions who are in good health. They require most careful medical supervision, and this supervision can be best carried out at the hands of the family medical attendant, or, in necessary cases, by the medical staff of the local hospital. The benefits accruing to medical inspection will fall short of expectations unless there be pleasant relations between the medical inspectors and the practitioners in the district; and in the problem of the future of the tuberculous child, or the child who is

supposed to be phthisical, this cordial co-operation is of the utmost importance.—I am, etc.,

Edinburgh, Nov. 30th. J. ALLAN, M.D., D P.H.

COLOUR BLINDNESS.

SIR,—With reference to the correspondence that has taken place on colour blindness, it seems to me that the crux of the whole matter is this: That it is not generally recognized that there is such a thing as being colour blind at a distance only.

I know a family of seven—four women, three men. The colour vision of the women is normal. The three men are what I call "distant colour blind for red"—that is, they are unable to distinguish red from green at a distance, but have no difficulty in doing so near to. One of them had to leave the merchant service because of it, although he had passed the examination in colours; and it was not till some time afterwards that he accidentally discovered that he was colour blind at a distance.—I am, etc.,

Upton-on-Severn, Nov. 29th. C. P. BURD.

INHERITANCE IN PHTHISIS AND INSANITY.

SIR,—In your sympathetic article of November 20th on my memoir dealing with the inheritance of phthisis you raise a question of great interest. In the memoir I divided my sample population into two groups: (1) A group consisting of well-to-do persons and prosperous poor individuals; (2) a group belonging to the very poor and destitute classes. The statistical reduction of the data thus distributed in a four-fold table gave a correlation coefficient of 0 02, which led to my conclusion that the association between poverty and all the environmental conditions it involves and phthisis is insignificant—at any rate for the population covered by the criminal classes. Now you very justly observe that the particular grouping of my data may have obscured one very important environmental effect of poverty upon phthisis—the effect of overcrowding. You suggest that if instead of combining the well-to-do and prosperous poor into one class I had drawn the line of cleavage between the well-to-do and all the poor grouped together, some effect upon the occurrence of phthisis due to overcrowding might possibly have emerged. Now this suggestion is so very feasible that, while regretting I did not deal with it in my memoir, I should like to publish the result of this new arrangement of the data without further delay. The data, distributed in accordance with your suggestion, are given in the following table:

Class Correlation in Phthisis: Incomplete Family Histories.

Class.	Tuberculous.	Not Tuberculous.	Total.
Overcrowded poor	192	4,543	4,735
Well-to-do	43	628	671
Total	235	5,171	5,406

Which gives a coefficient of —0.12 as the intensity of association between overcrowding and phthisis. That is to say, upon the evidence of my data the association between overcrowding and phthisis is on the side of immunity from that disease. However, in view of the large probable error due to random sampling with so few data, and of the fact that the family histories of the well-to-do individuals are more complete—their average age being higher—I would not lay much stress upon the significance of this correlation. But, whether significant or not, I do not see that this correlation is necessarily opposed to Dr. Newsholme's view that overcrowding has an important bearing on the prevalence of phthisis. Within one broad class, such as the overcrowded poor, there may be many gradations in the prevalence of phthisis, and these gradations may be associated with varying densities of population. Such intra-class differences, if they exist, would of course not be revealed by my data.

Nor do I think that, if existent, these intra-class differences would essentially contradict the inter-class conclusion my data do reveal, which is that, between the two broad classes compared, the badly-housed poor are, if anything, more immune to phthisis than the well-to-do who are healthily housed. Now, the only reasonable interpretation of an association between poverty and immunity from an infectious disease is that hygienic conditions of life favour the survival of the physically unfit. Overcrowding, while it leads to an increased incidence of phthisis amongst individuals with a given inherited grade of diathesis, leads also to a higher mortality amongst such individuals. Fewer of these individuals becoming parents, the average grade of diathesis transmitted to the next generation is proportionally lowered. That is to say—amongst the poor—increased liability to infection by phthisis is counteracted, perhaps more than counteracted, by a reduced inherited tendency to be infected.—I am, etc.,

CHARLES GORING.

Biometric Laboratory, University College, London, W.C., Dec. 3rd.

SAMPLE TESTIMONIALS.

SIR,—The question of the origin of testimonials from medical men and nurses, which are so largely used to capture the public eye by vendors of quack medicines and proprietary articles, has often excited my curiosity, and I have often been on the point of accepting the invitation so commonly given to call and inspect the originals.

An advertisement which appeared in the *Nursing Mirror* of November 27th, however, sheds a considerable amount of light on the manner in which these testimonials are obtained, at least from nurses.

The advertisement relates to a nurses' competition promoted by the proprietors of "Oxo," offering £50 in prizes to nurses for the best testimonials extolling the virtues of "Oxo." Samples of testimonials are given, presumably for imitation. These, of course, contain the usual stories of patient at last ebb, given up by the doctors, etc. "Oxo" administered, and, hey presto! marvellous recovery.

By the majority of nurses this, I have no doubt, will be treated with the same contempt as a similar competition for doctors would be treated, but I need scarcely point out the insidious character of the appeal to those nurses whose standard of ethics is not high, or whose discretion is not great.

It would be well, therefore, for doctors, and particularly heads of institutions, to remember the existence of this competition, for to be forewarned is to be forearmed.—I am, etc.,

Birmingham, Dec. 8th. M.D., D.P.H.

THE PROFESSION AND THE STATE.

SIR,—I think that the heading should be "The State and the Profession," as the State has so much to say, and the profession so little. The State, we know, has no conscience, and I think that we should place ourselves in the same happy condition. The State laments over its crippled and abnormally developed offspring, and appoints medical men to lay bare these abnormalities, and then leaves our hospital staffs to deal with them, of course without fee or reward, and not even thanks.

Dr. Fletcher hits the right nail on the head when he points out that if our voice as a profession is to be heard we must have professional unity and adequate parliamentary representation. This we might easily obtain if we were less individually selfish, and regarded questions as affecting the profession as a whole rather than ourselves as individuals. If we were united we should have no trouble at all in getting our fees when called to help midwives.

In the treatment of school children we should say we, as members of hospital staffs, refuse to treat these children, and the Government would be compelled to formulate a scheme acceptable to the profession. All our difficulties arise from self-seeking. Shall I offend So-and-so? Will my attitude interfere with my personal prospects? Shall I be regarded as a hard-hearted doctor? Questions such as these control our attitude. Whereas the questions we should ask ourselves are these: Am I upholding the dignity and rights of my profession? Am I improving the status of my profession? Am I teaching the poor man or his guardian—the State—the duty of

thrift and the pleasure of independence? We hate parasites, and yet we are creating the most loathsome class of parasites—the human parasite.—I am, etc.,

Bedford, Nov. 30th. S. J. Ross.

A NATURAL EXPERIMENT IN CARDIAC STRAIN.

Sir,—Others with myself may have felt some inclination to write to express dissent from the views expounded by Dr. Theodore Fisher; and I am glad that the able pen of Dr. Clive Riviere has written nearly all that I wished to write. As one whose duty it is to demonstrate the methods of percussion to students, I hold strongly to the opinion that it is possible to map out the deep dullness in such a way that one gains a fair judgment as to the size and shape of the heart and of its several cavities; and that this estimate is with very little practice remarkably correct from an anatomical point of view, even when the attempt is made by a comparatively new student who has had but little instruction as to the methods of procedure.

With regard to deep cardiac dullness in children (and I think I am fortified by Dr. Clive Riviere's opinion) in spite of the constant movements of the heart, the mean area of deep dullness may be ascertained as well for children as for adults. Errors, if any, owing to the movements of the heart, should be surely less in children than in adults, as the heart in them is relatively larger. It is a little regrettable that most of the textbooks are not sufficiently explicit about the extent of the deep dullness both in adults and children.

I have noticed that not a few percussors fail entirely to map out the outlines of the heart to the right of the sternum. Sometimes I notice the result shows a confusion between the right border of the superficial dullness and the right border of the deep dullness. It will be within the experience of many that anyone who can find the limits of the healthy dullness perceives very readily, for instance, the change in the deep dullness to the left of the sternum in a case of *unsuspected* dextrocardia.

I am accustomed to teach students to map out and to measure the deep cardiac dullness, to attach great importance to its shape, and to endeavour to make a diagnosis therefrom, this diagnosis being made before they appeal to what is usually the final arbiter—the sounds.

I think that Dr. Clive Riviere and many others will agree that it is as possible to estimate the size of an average heart, and of its several chambers, in a child or an adult, as it is to measure the size of the chest—that, indeed, the deep cardiac dullness can be mapped out *with a very near approach to anatomical accuracy.*—I am, etc., yours faithfully,

Cambridge, Dec. 6th. E. Lloyd Jones.

NURSES' REGISTRATION.

Sir,—With reference to the article on Nurses' Registration on page 1632, Sir William Macewen is referred to as voicing the views of Scotland on this matter. It would be interesting were Sir William or the writer of the article to state by what authority Sir William speaks for Scotland in this matter. I should also like to ask how many matrons of large general hospitals in Scotland belong to his association.

I hope that some of these matrons, who are better qualified than he is, surely, to speak of the nurses of Scotland, will explain how far the views in your article really express the views of Scottish nurses.—I am, etc.,

Edinburgh, Dec. 7th. R. McKenzie Johnston.

⁂ The article did not profess to do more than briefly trace the origin and analyse the provisions of the two bills. It was distinctly stated that two associations existed in Scotland to promote legislation as to nurses' registration, and that Sir William Macewen was president of one of them. This statement seems logically to preclude the assumption that we supposed that Sir William voiced the views of Scotland, meaning by that the whole of Scotland.

The Queen's Hospital for Children, Hackney, has received from the Duke of Newcastle a new *x*-ray apparatus to replace the installation furnished by the same donor some ten years ago.

Medical News.

The *Times* states that the Columbia University, New York, will receive a sum, estimated at 300,000 dols., for the investigation of cancer, under the will of the late Mr. George Crocker, the son of a Californian financier. Mr. Crocker and his wife both died of cancer.

The Army Council has approved of the appointments of the undermentioned gentlemen as members of the Army Medical Advisory Board being renewed for a period of three years: Dr. J. Rose Bradford, F.R.S., Sir C. Cameron, Kt., C.B., Dr. L. C. Parkes, Dr. M. S. Pembrey, Sir F. Treves, Bt., G.C.V.O., C.B.

The lecture on "The Prevention of Tuberculosis; the Larger Outlook," will be given by Dr. R. W. Philip, of Edinburgh, at the Municipal Buildings, Tottenham, N., on Monday, December 13th, and not December 15th as previously announced. Admission will be by tickets, which can be obtained from the Medical Officer of Health, Tottenham.

Among the course of lectures to be given at the Royal Institution before Easter is a course of six by Dr. F. W. Mott, F.R.S., Fullerian Professor of Physiology, on the emotions and their expression, and three by Professor Silvanus P. Thompson on illumination, natural and artificial. The Friday evening meetings will commence on January 21st, when Professor Sir James Dewar will deliver a discourse on light reactions at low temperatures.

The exhibition organized by the National Association for the Prevention of Consumption, which proved so successful in Whitechapel some months ago, is now at Paddington for a short time. It will be displayed in the Congregational Hall until December 16th, from 12 to 9.30 p.m., and was opened by H.R.H. Princess Marie Louise of Schleswig-Holstein on December 8th, the Princess being supported by the Countess of Aberdeen, the Mayor of Paddington, and others. The object of the exhibition is to instruct the people—and especially the poorer classes—in the cause, mode of propagation, possibility of prevention and cure of consumption, with a view of bringing home to their minds the extent of the loss occasioned by the disease and the possibilities of diminishing this. On each afternoon and evening there will be given popular lectures bearing on the subject of tuberculosis and its prevention, and voluntary helpers will be on duty in the exhibition to explain to the visitors the meaning of the exhibits. Admission is free.

On December 8th the Battersea Borough Council spent much time in considering a recommendation from its Highways Committee "That the solicitor be instructed to negotiate for the removal of the Brown Dog Memorial and for its return to the donors." A deputation of Progressive ex-councillors and of antivivisectionists attended and prayed that the memorial should not be removed. They went so far as to intimate that they would agree to an alteration of the inscription, but would not undertake to consent to such an alteration as would satisfy University College. The plea for the retention of the memorial was based partly on its alleged "educational value" and partly on the circumstance that certain of the people of Battersea looked upon it as their own and had given the council no "mandate" to interfere with it. There was a strong disposition on the part of councillors to accept the suggestion that the inscription should be altered, and this in spite of the fact that Mr. Astill, the leader of the Reform party, called attention to the statement of the Commissioner of Police that the memorial cost £700 a year to protect. Such a memorial, said Mr. Astill, was a nuisance, and ought to be removed. Dr. McManus moved that the recommendation of the committee should be referred back, with a view to an arrangement being made whereby the offensive inscription might be removed and a truthful one put in its place. This was seconded by Dr. Richards. Dr. McManus said he objected only to the inscription. The motives of those with whom it originated were beneath the contempt of the profession. The council adopted his proposal.

The Services.

TERRITORIAL FORCE.

S.—A medical man aged 39 is not too old to become a medical officer of the Territorial Force. Application should be made to the A.M.O. of the Division he wishes to serve in.

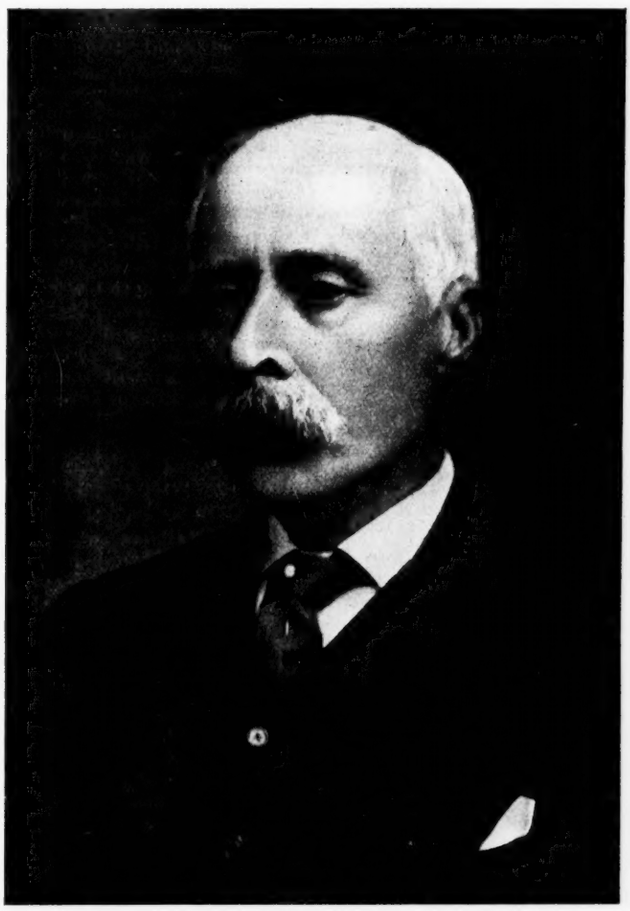
Obituary.

ROBERT MARCUS GUNN, M.A., M.B.EDIN., F.R.C.S.ENG.,

SENIOR SURGEON, ROYAL LONDON OPHTHALMIC HOSPITAL (MOORFIELDS).

ROBERT MARCUS GUNN, whose death we had with the deepest regret to announce last week, was the youngest and last survivor of two sons and two daughters; he was born of an old Norse stock at Dunnet, Sutherlandshire, in 1850, and died in his 60th year on November 29th, after a painful and distressing illness of many months' duration. He leaves a widow and two daughters. He had influenza several times, and it is doubtful if he ever recovered his full vigour after the first attack. He was educated as a boy at the late Mr. Thomas Fraser's school at Golspie, and afterwards at St. Andrews and Edinburgh University, where he graduated with distinction, M.A. (1871) and M.B. and C.M. (1873). Amongst his teachers were Syme and Lister, and on the ophthalmic side Walker and Argyll Robertson. He seems to have taught himself the "direct" method of ophthalmoscopic examination at this period with a De Wecker's ophthalmoscope.

He went to the Moorfields Hospital in 1873, and attended especially Mr. Couper's practice. In 1874 he worked at the comparative anatomy of the eye under Professor Schäfer at University College, and in the summer both of that year and of 1875 took vacation charge of the Perth District Asylum, Murthly, one of his objects being to examine the fundus oculi in a large number of lunatics with reference to Clifford Allbutt's then recent work. Gunn found his lunatics as free from eye changes and defects as any similar sample of normal persons. He liked the asylum work, and got on well with the inmates, having no fear, and often going amongst them alone as if they were ordinary people; only once was he set upon, by a melancholic old woman who resented being spoken to, and, without warning, attacked him, but was promptly pulled off by another inmate who came to his rescue.



Photograph by] ROBERT MARCUS GUNN. *[Elliott & Fry, London.*

From December, 1874, to June, 1875, he studied under Jaeger at Vienna. He was much attracted by Jaeger's personality; he appears to have been a favourite pupil, and had a great admiration for his teacher. Jaeger insisted on all members of his class using his own form of ophthalmoscope, an improved model of the original Helmholtz. On returning to London Gunn again worked under Mr. Couper at Moorfields until August, 1876, when he was appointed Junior House-Surgeon, becoming Senior in December, and retaining that office for two years (November, 1879). He was an extremely efficient House-Surgeon, and several marked improvements in the nursing, in-patient note-taking, care of instruments, and results of operations for cataract, during his term were in part due to his initiative. He was, like Mr. Couper, a strong believer in Listerism.

In December, 1879, he started on a voyage to Australia, choosing that country because he wanted specimens of eyes from some of its peculiar fauna. His work on the comparative anatomy of the eye, which had already attracted Bowman's notice, was published in part in the *Journal of Anatomy and Physiology* for 1877 and 1884 and elsewhere in 1888, and he also assisted in working up the zoological material from the *Challenger* expedition; but his Arris and Gale Lectures at the Royal College of Surgeons were never published.

He took the diploma of the F.R.C.S. in 1882, and was elected Assistant Surgeon to the Moorfields Hospital in August, 1883, and Surgeon in November, 1888. About 1883 he was appointed Ophthalmic Surgeon to the Hospital for Sick Children, and in 1886 Ophthalmic Surgeon to the National Hospital for the Paralysed and Epileptic, Queen Square; some years later he was for a time Assistant Ophthalmic Surgeon to University College Hospital—the only hospital with a medical school to which he was ever attached. There had been other less important hospital staff appointments in the earlier years.

In 1898 he acted as Vice-President of the Section of Ophthalmology of the British Medical Association when it met in Edinburgh. In 1906 he presided over the same Section when it met in Toronto, and later delivered before the American Academy of Ophthalmology an address on certain affections of the optic nerve, in which he argued that the initial oedema of the disc in papillitis from cerebral tumour, the origin of which has been so much disputed, was due to pressure by the fluid of the distended intersheath space upon the small veins of the pial sheath which are the principal channels for the escape of blood from the papilla. In 1907 he delivered an interesting address on the value of the ophthalmic symptoms in general diagnosis and prognosis (BRITISH MEDICAL JOURNAL, 1907, vol. i, p. 1353), and had arranged to take part in one of the discussions at the Belfast meeting of the British Medical Association, but when the time came he was too ill to appear.

At the time of his illness Mr. Gunn was Senior Surgeon to the Moorfields Hospital, Ophthalmic Surgeon to the National Hospital for the Paralysed and Epileptic, President of the Ophthalmological Society, and a Visitor for the King's Hospital Fund. Apart from his daily hospital and private practice, Mr. Gunn's ophthalmic interests lay to a large extent in the physiology and pathology of the retina, optic nerve, and visual functions. Of his later work he would probably have liked best to be associated with his classical paper on the ophthalmoscopic evidence of retinal arterial sclerosis as a sign of similar changes in the arteries of the brain and other organs. (*Transactions of the Ophthalmological Society*, xviii, 1898.) He had also convinced himself of the bad life prospect of persons with albuminuric retinitis some time before Miley's well-known paper on this subject was undertaken (*Transactions of the Ophthalmological Society*, viii, 1888); thus, in discussing

before the Ophthalmological Society the differences between diabetic and renal retinitis he (*Transactions*, vi, p. 334, 1886) had used these words: "In my experience it is most exceptional to see an old case of albuminuric retinitis; this latter affection seems to occur at a late stage of the general disease, so that death supervenes before the retinal changes have existed very long." He first learnt this by discovering that patients with this retinitis who attended for demonstration usually died before the time came round for the following year's course.

In speaking of unpublished work, it may be mentioned that Gunn was one of the first, if not the first, to insist on the importance of studying fine changes in the cornea and iris by the aid of the strongest available simple microscope, and that he has the credit of causing the introduction at Moorfields of the now commonly used high pocket magnifier.

When in Vienna he had been much impressed by the systematic teaching of ophthalmology, and soon after his attainment of staff rank at Moorfields his efforts led to the establishment of regular courses of instruction in ophthalmoscopy. Other courses have since been added, and the present flourishing School of Ophthalmology at the hospital is the result.

He was an operator of no mean skill. He invariably extracted cataracts after a preliminary iridectomy done several weeks previously, and always held that this was the safest operation. He had a high idea of the responsibility which lay upon the surgeon, and this he carried to the extent of seldom allowing any one else to perform the operations for which he himself was responsible. He was a skilful all-round ophthalmic surgeon, but it was universally felt that it was as an ophthalmoscopist he shone with the highest brilliancy.

Although not a copious writer, Mr. Gunn published a considerable number of papers and observations, besides those already mentioned. The following are the most important of them: Retinal Reflexes. Sympathetic Inflammation (*Royal London Ophthalmic Hospital Reports*, xi, 1887). Light Percipient Organs, etc. (ibid., xii). Peculiar Dots in the Retina (now generally known as "Gunn's dots") (*Transactions of the Ophthalmological Society*, iii). Amblyopia from Bisulphide of Carbon (ibid., vi). Nystagmus. Toxic Amblyopia (ibid., vii). Growth of Lens Fibres. Foveal Reflex in Myopia (ibid., viii and xv). Retinal Arterial Sclerosis (ibid., xii, xviii, and xxiv). Pemphigus of Conjunctiva (ibid., xiii, xv, xvi). (?) Haemorrhage into Optic Sheath (ibid., xvi). Retinitis Circinata (ibid., xviii). Bowman Lecture on Visual Sensations (ibid., xx). Presidential Address (ibid., xxviii). Keratitis Nodosa (ibid., xxii and xxix). Family Optic Atrophy (ibid., xxvii). Two Lectures on Congenital Malformations of the Eye (*Ophthalmic Review*, viii, 1889). Haemorrhagic Disease of Retina with Obliteration of Veins, Plate II (*Helmholtz Festschrift*, 1891).

Gunn was a very highly skilled ophthalmoscopist, his observations being seldom questioned by his colleagues, and always taken as final by his pupils. It was his conviction of the importance of cultivating the direct method that led him to take a somewhat discouraging attitude towards retinoscopy as likely to lead to neglect of the search for slight changes at the fundus.

He was endowed with marked intellectual gifts, and was an exceedingly keen and accurate observer; his mental grasp prompt, clear, and strong; his judgement careful and well balanced, whilst his matter-of-fact simplicity was qualified by a ready sense of humour. Fond of reading, and having a good memory, he had the gift of rapidly extracting and retaining what he wanted from a book; and here it is worth notice that his father and father's brothers, though occupied in farming pursuits, managed to get university education under very difficult circumstances. It is on record that these lads walked from their isolated northern home a hundred miles to Aberdeen in order to attend the university, and this not once, but every term till they had completed the courses.

Of Marcus Gunn's character we can say that he was courageous and pure in body and mind, modest to a degree, but clear and strong in his convictions, sweet of temper, and if sometimes intolerant never aggressive, ready to see the better side, and scrupulous in giving credit wherever due, but sensitive and quick to resent, without respect of persons, anything he thought an infringement of dignity. He had no desire for wealth, as such, and valued it even for what it brings less than many. His influence, alike with colleagues, students, and patients, depended on their conviction that he was true and loyal always, was never satisfied with slipshod examination or half knowledge, and although himself guileless, was no mean judge of character and motives in others.

From boyhood he was devoted to outdoor pursuits, especially shooting, botany, marine zoology and geology, and for many years past he had spent the bulk of his holidays in collecting fossils, chiefly from the Jurassic and Old Red Sandstone systems, from Scotland to Dorsetshire. He had always looked forward with great pleasure to classifying and describing the collections himself after retiring from practice; but when he knew this could not be he was much gratified to find that the Geological Department of the British Museum was desirous of acquiring a large number of his more valuable specimens, and these were actually made over during his lifetime.

His invariable considerateness for others was never seen to better advantage than in his last illness, during which he never, however physically distressed, forgot for a moment his habitual courtesy and cordiality to all around him.

One of his old colleagues writes:

By the death of R. Marcus Gunn at the comparatively early age of 59, his profession and his friends have sustained a grievous loss. To those who, like the writer,

have had the privilege of a long association with Marcus Gunn, as colleagues on the staff of the Moorfields Eye Hospital or elsewhere, his death comes as a deep and permanent sorrow.

Gunn's reputation in the ophthalmic world is so well established that any testimony thereupon would be superfluous. He was universally recognized as one of the most able and experienced of ophthalmologists, and his opinion was very highly valued by his professional brethren.

Gunn's standards in life were all high. His professional work was characterized by great accuracy and thoroughness. He was a highly skilled clinical observer, and as an ophthalmoscopist he had very few equals.

As a colleague, whether in hospital or in private work, he was almost ideal—kind, generous, and scrupulously fair. He was gifted with a judicial mind, and by reason of this, and of his rigid honesty, he made an excellent chairman of committee or other meetings. His wide knowledge of ophthalmology, added to these qualities, rendered him an admirable and successful president of societies, such as the Ophthalmological Society and the Ophthalmological Section of the British Medical Association.

Gunn was a very good teacher—clear, decisive, and not too dogmatic; he took a keen interest in teaching, more especially in teaching ophthalmoscopy. There are many old students of Moorfields Hospital who gratefully remember the instruction given to them by Gunn in the "ophthalmoscope class."

Although of a retiring disposition, Gunn was a man of strong character and decided views, and always had the courage of his opinions. By reason of his transparent honesty and singleness of purpose he gained the respect of all, even of those opposed to him in opinion or action. Those who knew him intimately recognized that his was a character to love and admire. He has left behind him many friends for whom his place can never be filled.

J. B. L.

THE death is announced at Torquay of Deputy Inspector-General THOMAS SECCOMBE, M.D., one of the oldest surgeons on the retired list of the Royal Navy; he was in his 91st year. He was educated at the University of Edinburgh, and entered the Royal Navy as Surgeon, February 6th, 1845; he became Staff Surgeon, February 25th, 1853; Fleet Surgeon, October 10th, 1867; and Deputy Inspector-General on retirement, November 14th, 1880. During the Kaffir war in 1851 he was Surgeon to the native levies, and was present at most of the skirmishes, receiving a medal. In 1852 he had charge of the field hospital at the capture of Rangoon, and took part in many boat expeditions in its river, for which he was mentioned in dispatches and promoted, and awarded the Burmese medal.

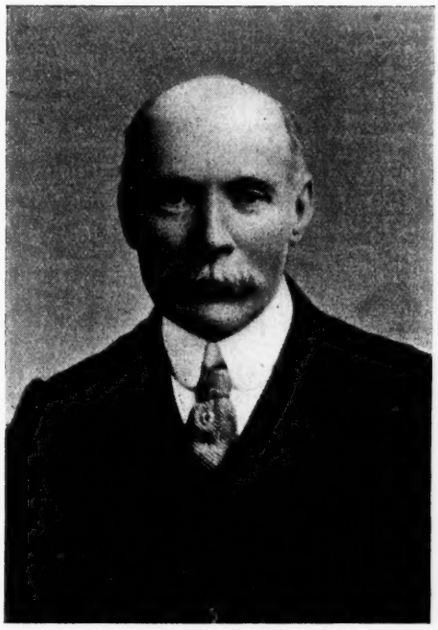
DEPUTY SURGEON-GENERAL JAMES EDWARD SCOTT, M.B., late of the Army Medical Department, died at Dublin on November 7th, aged 84. He entered the Army Medical Service as an Assistant Surgeon, June 11th, 1847; became Surgeon, February 9th, 1855; Surgeon-Major, June 15th, 1867; and Honorary Deputy Surgeon-General, on retirement, December 6th, 1873. He served with the Rifle Brigade in the Kaffir war of 1852–3, including the expedition beyond the Kei in August, 1852, and the final clearing of the Waterkloof, receiving the medal. He embarked with the Rifle Brigade and served throughout the Eastern campaign of 1854–5 (from March, 1855, as Surgeon of the 41st Regiment). He was granted a medal with four clasps, the fifth class of the Order of the Medjidie, and the Turkish medal.

CHARLES ROBERT BELL KEETLEY, F.R.C.S.ENG.,

SENIOR SURGEON TO THE WEST LONDON HOSPITAL,

IT is with sincere regret that we learn of the death of Mr. C. B. Keetley, for many years Senior Surgeon to the West London Hospital, who died suddenly at Brighton on December 4th from heart failure, aged 61

Mr. Keetley was born at Grimsby on September 13th, 1848; he was the son of Mr. Robert Keetley, shipbuilder of that town, and was educated at Browne's School, Grimsby; thence he proceeded to the Hull Infirmary, and afterwards entered as a student at St. Bartholomew's Hospital. He won the gold medals in anatomy and materia medica at the University of London, and after receiving the diplomas of M.R.C.S. and L.R.C.P. in 1873 was appointed House-Surgeon in 1875 to the Queen's Hospital, Birmingham. Subsequently he engaged for a short time in private practice at Bungay in Suffolk, and then returned to his Alma Mater, where he held for a short time the post of an Assistant Demonstrator of Anatomy, and took the diploma of F.R.C.S. (1876). Of good physique and splendid muscular development, he was during his student days a keen athlete, and was well known as a good football player, oarsman, and boxer. It is more than probable that at this period he injured his heart, for the existence of the cardiac defect to which he ultimately succumbed was known to him for many years, although his most intimate friends were unaware of it. He was one of the first to recognize the value of Lister's antiseptic methods, the practice of which he introduced at the West London Hospital. He carried out its detail with so much success that at one time some of the larger London hospitals insisted upon men, candidates for the appointment of house surgeon, visiting the West London Hospital in order to perfect themselves in the technique.



CHARLES ROBERT BELL KEETLEY.
[*Photograph by Mora, Limited, Brighton and Southsea.*]

Amongst the many appointments he held were, in addition to that of Senior Surgeon to the West London Hospital, those of Consulting Surgeon to Cray Valley Cottage Hospital, the Brentford Hospital, and the Cottage Hospital at Fleet, Hants. He was the founder of the West London Medico-Chirurgical Society and also of the Lincolnshire London Society, and had served the office of President of both. He was a Fellow of the Medical Society of London and of the Royal Society of Medicine, a corresponding member of the American Orthopaedic Society, a member of the Harveian Society, and Vice-President of the Balneological and Climatological Society. He was for many years a regular attendant at the medical societies in London, often taking part in their discussions.

He was the author of *An Index of Surgery*, which was widely read by students preparing for examination, as well as by practitioners, and of which the fourth edition appeared in 1887. He wrote also *The Students' Guide to the Medical Profession* (second edition, 1885); *Orthopaedic Surgery* (1900); and *Complicated Fractures* (1902). He was for some years co-editor of the *Annals of Surgery*. He was a voluminous writer, and contributed many valuable papers to the medical journals, chiefly upon orthopaedic, abdominal, and plastic surgery. Nothing seemed too difficult for him in general surgery, and in orthopaedic and plastic surgery he attained brilliant results. His Harveian lecture in 1904 dealt with the last-named subject. In 1907 he was appointed to deliver the Cavendish lecture, and he chose for his subject the conservative surgery of the appendix vermiformis. At the Royal Society of Medicine he read a paper upon appendicostomy, having introduced the practice of that operation to this country.

When Keetley joined the West London Hospital it was

a small place with some forty beds, and two operating afternoons a week amply sufficed. Mainly owing to Keetley's initiative, determination, and ability, the institution has grown rapidly. To mention one of his efforts on its behalf, the successful bazaar of 1896, which brought in upwards of £3,000, was organized by him. He was a most regular attendant at the meetings of the Board of Management, generally joining freely in the discussions; nor did he neglect the meetings of the Medical Council.

From the time that he was appointed Assistant Surgeon to within a week of his death Keetley may be said to have devoted the greater part of his working day to the West London Hospital, the interests of which were paramount with him. His skill and success in difficult cases often brought patients from great distances to the hospital, and his kind and sympathetic manner greatly endeared him to all.

He initiated (Dr. H. W. Chambers afterwards acting as Secretary) the Army Medical Civilian Reserve, the first unit of which went through a course at the West London Post-Graduate College. The scheme was subsequently merged in the Territorial Force; Keetley, together with Dr. Fowler, Mr. R. J. Godlee, and Sir Thomas Barlow, was appointed a Lieutenant-Colonel, available on mobilization in the Third London (General Hospital) Territorial Force.

He became a Mason in later life, having been initiated in the Rahere Lodge, and he was a joining member of the Cavendish Lodge. When present at the meetings of either he always had a hearty welcome, and often delighted the brethren with his post-prandial oratory for which he was so very popular. He was also a member of the Savage Club.

He married Anna, the daughter of the late Mr. Henry Holmes Long, H.E.I.C.S., whom he leaves, with a large circle of friends, to deplore his loss.

Mr. Swinford Edwards writes: As a personal friend and colleague of thirty years' standing, Keetley's sudden decease comes as a great blow to me, and, indeed, to all my colleagues on the staff of the West London Hospital, an institution to which he devoted the greater part of his energies. I believe that I am right in stating that Keetley sacrificed his life to what he considered his duties to that hospital. In spite of warnings by those who had attended him for a cardiac trouble in the early summer, he insisted in carrying on his work not only by day, but actually in doing his own emergency work at night, and this at the age of 61. Keetley loved the hospital, and was often known to neglect his own private interests that he might devote more time to his hospital patients.

I should say that Keetley's chief characteristic were his honesty, single-mindedness, and generosity. He was a man of great energy, dogged determination, and much resourcefulness in operations. Initiative was another of his strong points, as witness the founding by him of the West London Medical and Chirurgical Society, which is one of the largest and best attended societies in London; the Ladies' Association in connexion with the hospital; and the Lincolnshire Society, which, I believe, largely owes its being to his exertions. The same may also be said of the West London Post-graduate College, which has proved such a success.

Had it not been for the infirmity of deafness and his lack of business habits, Keetley, owing to his genius and great powers of intellect, would no doubt have risen to greater heights and to a more lucrative practice than he actually attained. He was a recognized authority on orthopaedics, and the results of many of his cases of plastic surgery were brilliant. His recent work on appendicostomy and on the preservation of the appendix have attracted much notice both in the medical and lay papers.

We of the West London shall miss him as a real friend to whom we could turn for advice and help in any difficulty, and we shall always remember him in his lighter moments for his very humorous and witty after-dinner speeches, and for his great talent as a pen-and-ink caricaturist.

Dr. Neville Hart (Bournemouth) writes: As one who has worked with the late Charles Keetley as his house-surgeon, I have a feeling of irreparable loss, shared, I know, by all who had any intimacy with him. There are two maxims on which he was always very insistent, which are fittingly reiterated here, in a medical journal. The first was that of the importance of concentrating oneself on the matter in hand. For instance, when operating, he was always careful that he and his house-surgeon should speak as little as possible, not only from the well worn reasons connected with sepsis, but also that his thoughts should not be diverted from the matter in hand; and he was particularly intolerant if any extraneous subject was introduced to his notice at such a time. The other was that of the importance of always exercising common sense in conjunction with one's technical knowledge. You will no doubt enumerate his professional achievements and writings. I will only refer to his advocacy of the operation of appendicostomy for many conditions for which it is not usually practised, and above all for certain cases of intractable chronic constipation. I have followed many of the cases he has reported, and, indeed, was his assistant the first time he did it for this condition, and think that this advocacy was based on a most cogent framework of facts.

We much regret to announce the death of Mr. Mark Farrant, of Exeter, who passed away on November 29th after a long illness, aged 38. He received his medical education at the Westminster Hospital, and obtained the diploma of L.R.C.P. and M.R.C.S. in 1893. Shortly afterwards he joined his uncle in practice at St. Thomas, Exeter, where he speedily won the affection of all with whom he came in contact by his kindness, thoughtfulness, and tact. He was appointed Medical Officer of Health to the St. Thomas Rural District Council in 1896, and took the D.P.H. (R.C.P.S. Lond.) in 1901. He also held appointments under the St. Thomas Guardians and Devon County Council. He had many interests outside his profession, being a keen naturalist, Expert to the Devon Beekeepers' Association, and a well-known amateur gardener. He was an ardent politician, sometime President of the Conservative party in St. Thomas, and founder of the St. Thomas Conservative Club. In all these pursuits he engaged with that characteristic thoroughness which ensured success. It only remains for us to offer his relatives and numerous friends our heartfelt sympathy.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are: Dr. Pierre Merlou, Minister Plenipotentiary of France in Peru, and sometime Minister of Finance; Dr. Arturo Marini, Lecturer on Obstetrics and Gynaecology in the Medical Faculty of Genoa; Dr. S. F. Bubnoff, Professor of Hygiene in the Medical Faculty of Moscow, aged 55; Professor Antonio Ripamonti, Physician to the Ospedale Maggiore of Milan, and Lecturer on Neuropathology; Dr. Max Jordan, Extraordinary Professor of Surgery in the University of Heidelberg, aged 45; and Dr. A. W. Nalanson, Lecturer on Ophthalmology in the University of Moscow, aged 47.

Universities and Colleges.

UNIVERSITY OF OXFORD.

THE following candidates have been approved at the examination indicated:

D.P.H., PART I.—C. V. Aserappa, M. N. Balsara, H. M. Crake J. Fortune, S. K. N. Kabriji, J. B. Mama, W. S. Stalker, L. R. Tosswill, W. F. J. Whitley.
PART II.—J. Fortune, J. C. Keir, W. S. Stalker, L. R. Tosswill.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on November 17th.

Panel of Lecturers in Physiology.

The following were added to the panel of lecturers in physiology: Mr. W. B. Hardy, M.A., F.R.S., Professor A. F. Stanley Kent, M.A., Dr. V. H. Veley, D.Sc., M.A., F.R.S., and Professor Swale Vincent, M.D., D.Sc.

Chemistry at the Matriculation Examination.

A new syllabus in chemistry to apply in and after January, 1911, was adopted. Candidates will be required to give evidence by their answers that they have seen experiments illustrative of all the subjects included in the syllabus, and that they have themselves performed a variety of simple qualitative and quantitive experiments. The questions set will have regard to the conditions under which the subject may best be experimentally taught in schools.

King's College and King's College Medical School.

On October 18th His Majesty in Council approved the statutes and regulations of the King's College Transfer Commissioners.

The Medical School of King's College Hospital, which was by the King's College (London) Transfer Act separated from King's College, has been admitted as an independent body to the status of a school of the university in the Faculty of Medicine.

Dr. David Waterston has been appointed Professor of Anatomy in succession to Professor Peter Thompson. Dr. G. C. Low has been elected Lecturer in Parasitology and Medical Entomology. Professor W. D. Halliburton has been elected Dean of the Faculty of Science, Medical Division.

Physiological Laboratory.

Sir Lauder Brunton, Bart., M.D., F.R.S., has been elected Chairman of the Physiological Laboratory Committee.

Appointment of Representatives.

Professor H. R. Kenwood and Professor W. J. R. Simpson, C.M.G., have been appointed representatives of the university at the third International Congress for School Hygiene, to be held in Paris in August, 1910. Dr. J. L. Sawers has been appointed a member of the Margate Local Higher Education Subcommittee, and Dr. F. R. Walters a member of the Governing Body of the Farnham Girls' Grammar School.

UNIVERSITY OF DURHAM.

College of Medicine Representatives on Senate.

AT a meeting of the Council on December 1st Professor Sir George Hare Philipson, M.D., the President of the College, and Mr. John Ernest Gibson, M.A., were unanimously elected as the two representatives of the Council of the College to act on the Senate as constituted under the University of Durham Act, 1908.

At a subsequent meeting of the Academic Board of the college Dr. David Drummond and Professor Robert Howden were unanimously elected as the two representatives of that Board on the Senate.

UNIVERSITY OF LIVERPOOL.

New Lectureships.

THREE new lectureships have been instituted by the Council on the recommendation of the Senate and of the Faculty of Medicine:

1. A lectureship in orthopaedic surgery, to which Mr. Robert Jones, Ch.M.Liv., F.R.C.S.Edin., was appointed.
2. A lectureship in physiology, to which the present Assistant Lecturer and Demonstrator, Dr. H. E. Roaf, was appointed.
3. A lectureship in pharmacology, to which Mr. Owen T. Williams, M.B.Lond., M.R.C.P., was appointed.

The lecturer in orthopaedics will deliver a course of lecture demonstrations during the summer term which will be open to graduates and undergraduates alike.

The lecturer in physiology will take special charge of the chemical physiology department.

The lecturer in pharmacology was temporary lecturer in the subject during the last two sessions; he will supervise pharmacological research, and will hold a class in practical pharmacology, which is in the third year of the curriculum for the degree.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

The Weber-Parkes Prize and Medals.

THE next award under this foundation will be made in 1912, and the adjudicators have selected as the subject of the essay for that occasion, "The influence of mixed and secondary infections upon pulmonary tuberculosis in man, and the measures, preventive and curative, for dealing with them."

All essays, together with any preparations made in illustration of them, must be transmitted to the Registrar of the College during the last week of May, 1912, in accordance with the regulations relating thereto, copies of which will be forwarded from the college on application. The award will be made at some time previous to October 18th in that year, on which day the prize and medals will be presented to the winners.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

The Fellowship.

IN recording the new regulations for admission to the Fellowship at page 1663 of the issue for December 4th, the word "physiology" was misprinted for pathology in respect of the final examination. The subjects of that examination are surgery, including surgical anatomy, and pathology. It may be added that in future no special examination will be granted in any circumstances, and that all applications for admission to either the primary or final examination must be lodged, together with certificates and receipts for fees, at least seven days before the preappointed date of examination. It is intended that examinations shall be held three times yearly, the commencing dates of the primary examination being the first Monday in March, the third Monday in July, and the third Monday in November. The final examination will commence on the following Monday in each case.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Lectures on the Evolution of the Brain.

THREE lectures on Some Problems Relating to the Evolution of Brain will be delivered on Monday, Wednesday, and Friday, December 13th, 15th, and 17th, at 5 o'clock each day, by Professor Grafton Elliot Smith, F.R.S., Arris and Gale Lecturer. The first lecture, which will be mainly historical, will deal with the foundations of the subject of these lectures laid in the museum by its conservators; the great work of Richard Owen on the structure of the brain in the marsupialia; the destructive criticism of his successor in the conservatorship and its influence in retarding the growth of a true knowledge of cerebral morphology; the influence of Huxley and the effects of the controversy aroused by the publication of Darwin's *Origin of Species*. The fundamental importance of the correct interpretation of the conditions found in the marsupialia and monotremata demonstrated by Osborn, on Huxley's suggestion, in his application of Flower's teaching to the vertebrata in general; the recent rehabilitation of Owen's work leading to the reversal of Osborn's generalization is the foundation upon which the true story of the evolution of the cerebrum is being built up. In the second lecture, the subject of which is the nature and origin of the neopallium, Professor Elliot Smith will discuss certain features of the brain in the marsupialia and monotremata; the disposition of the hippocampal formation, and the changes it undergoes in the eutherian mammalia; explanation of current misconceptions of the arrangement of the olfactory paths; the condition of the cerebral hemispheres in reptilia, amphibia, and dipnoi; certain discrepancies in the views of Ramon y Cajal, Edinger, Giuseppe Levi, and Ariëns-Kappers; the early neopallium; repudiation of the term "archipallium," wrongly attributed to the lecturer. The subject of the third lecture will be the evolution of the neopallium. The lecturer will deal with its local specializations in structure and function; the origin and significance of cerebral sulci; the problems still awaiting solution, and the present trend of research.

Medico-Legal.

ADAMS v. *VANITY FAIR* AND OTHERS.

IN the King's Bench Division on Thursday, December 2nd, Mr. Justice Grantham and a special jury commenced the trial of an action brought by Miss Martha Adams, M.B., D.P.H., against *Vanity Fair* (Limited), Southwood Smith and Co. (Limited), W. H. Macdonell, Frank Harris, and Ernest Pomeroy, claiming damages for libel. At an early stage of the hearing it transpired that the proceedings had been stayed against all but the last-named defendant, Ernest Pomeroy.

Mr. McCall, K.C., and Mr. J. A. Watson (instructed by Messrs. Greenwood and Greenwood) represented the plaintiff, and Mr. Rawlinson, K.C., M.P., and Mr. D. C. Bartley (instructed by Mr. J. A. Collins) appeared for the defendant.

Mr. McCall, in opening the case for the plaintiff, said the action was brought to recover damages for libel. It was an action which raised questions of very considerable public interest, and it raised one question of vital importance to the young lady he represented, because the libel, as he read it and as he invited the jury to read it, contained as cruel and as odious an imputation upon her as any writer could convey against any medical man. Miss Adams was a qualified medical practitioner holding a diploma of the University of Glasgow, and she held a diploma without which it was almost impossible for a medical man to act in a capacity which the plaintiff was holding—namely, as an officer of health; she held the Health Diploma of the University of Ireland. Having acquired those degrees on June 1st, 1908, the plaintiff applied for and was

appointed the medical inspector of schools in the district of Twickenham. Counsel had no doubt that the jury would understand the position. They would remember when the Act of Parliament was passed abolishing School Boards and transferring schools to the control of what was called the Education Committee of the Local Authority, a number of Departmental Orders were issued throwing upon the educational authority, so constituted, the duty of not merely attending to the education of the children, but attending to their health in such a way as to secure that they should have, as far as possible, trained minds and healthy bodies, and also that they should be so inspected and treated that the children were not likely either to suffer from illness themselves, or to convey infectious diseases to others. That was the kind of duty to which Miss Adams was appointed on June 1st, 1908. She was appointed upon terms which were afterwards embodied in a contract, the contract being dated September 1st, and under that agreement she was to discharge the various duties counsel had mentioned, and which were set out in the schedule which was attached to the contract. The jury were concerned in the case with what the plaintiff did in the discharge of the duty imposed upon her by the contract, which embodied a memorandum issued by the Board of Education, and which referred to the section of the Act of Parliament, the Administrative Provisions Education Act, 1907. In substance, Section 13 of that Act provided that the local education authority (in the particular case the Education Authority of Twickenham) was in duty bound to provide for the medical inspection of children before their admission to a public elementary school and on such other occasions as might be necessary. The memorandum set out the way in which those duties should be discharged—namely, by a medical officer whose duty it was to report any cases where report was required, and to supervise so that disease should be prevented as far as possible, cured where it could not be prevented, and contagion and infection stopped. That was set out in paragraph 5 of the Memorandum. In pursuance of her duties, to which the plaintiff gave up all her attention and all the skill she had acquired in her medical training, she on one occasion—on August 27th—visited certain schools called the St. Stephen's Schools. She was provided with a number of forms and a register and on that register she was to make the necessary notes of the children she examined, and the forms were to enable her to give notice to the proper authority—the medical officers of health, or anyone else whose duty it would be to see to any disease that existed or was suspected, and in the same way, if she found that the sanitary arrangements of the school were not satisfactory, or if the ventilation was not proper, it would have been her duty to call the attention of the clerk of the district council or the sanitary officer to such defects. Armed with her registers and her forms she went, accompanied by a nurse, to the St. Stephen's School on August 27th, where she found two girls who had not been vaccinated. In one case an exemption certificate had been obtained, and in the other case the young girl was unvaccinated and no exemption certificate had been obtained. Upon that the plaintiff, hearing of these facts, gave notice. A point would be made by the defendant that the notice should have been sent first of all to the clerk of the district council, or that it should have been sent to the medical officer. It may be it should have been, but what she did in the honest discharge of her duty was to send the notice to the vaccination officer whose duty it would be, of course, to convey it to the medical officer of health, who would deal with it as he thought proper. It was no part of Miss Adams's duty to vaccinate the children, or even to say that they should be vaccinated. Her duty was to inspect and to prevent, if possible, but to leave the means to be taken to prevent or cure to others—the medical officer of health or some other authority. It was known, of course, by every one familiar with courts of law, or who read the newspapers, the amount of strong feeling that existed upon the subject of vaccination, and vaccination and antivaccination had attached to their respective causes, as other highly discussed policies had, fanatics on both sides. Mr. Pomeroy, the defendant, judging by what was to be read, was a fanatic of the antivaccination order, and like most fanatics he readily transferred the language which might properly denounce the cause which he thought to be wrong to the persons on the other side who, as conscientious as, perhaps, himself, adopted the other side; and there was no good ground or good reason for terms such as he was about to read to the jury being applied to any one who took the opposite view to him. Miss Adams was simply discharging, under her contract, a duty which the Legislature had thrown upon the local authority, and discharging it to the best of her ability. As soon as the facts counsel had mentioned came to be known, the defendant, who had taken a prominent part in the discussion about vaccination, jumped at the opportunity of attacking the cause of vaccination, attacking the medical men who believed in and practised vaccination, and attacking in unmeasured terms the lady who was only doing her duty in reporting what she did report. In *Vanity Fair*, the well-known periodical, published on October 7th, there appeared the article of which counsel hoped the jury would say, before the case has gone very far, Miss Adams had just reason to complain of. Mr. Pomeroy, the defendant, admitted the alleged libel was written by him. It was headed "The Tyranny of Vaccination." "The crew on the Kesteven Education Committee have distinguished themselves in compulsory culture persecutions, but for compulsory cow-pox persecutions St. Margaret's, Twickenham, leads the way. The *Morning Leader* for September 29th reports" Whether the defendant himself wrote the article in the *Morning Leader* counsel did not know, but in *Vanity Fair* it was adopted and given circulation to among the body of readers. The article in the *Morning Leader* was in the following terms:

"A new method of enforcing the vaccination of children has been adopted at St. Stephen's School at St. Margaret's, Twickenham. On September 3rd last a lady doctor, Dr. Martha Adams, visited the school, attended by a nurse, to conduct the inspection of the little girls under the Act passed last year. When Dr. Martha discovered the presence of unvaccinated children she pointed out to the mothers that she would be obliged to report the fact to the vaccination officer. The local vaccination officer apparently has received the names of those children who were found to be unvaccinated, and already some parents have given way and had their children vaccinated. Mr. Hazard, of Newry Road, St. Margaret's, has received two notices, one requiring vaccination and the other a form for him to send to the public vaccinator to attend to vaccinate, and the nurse who attended the doctor at the inspection has also called at his house to know if the child has been vaccinated yet or not. The little girl, who is now 7 years old and in perfect health, will not be vaccinated. The father will take care not to allow this, even if it means the payment of probably from 30s. to £2 for a fine and costs at the police court. The prospect this action of the lady doctor opens up is most alarming. Thousands of parents are in the same position as Mr. Hazard, for it will be remembered that in a large number of districts it was impossible to get exemption at all under the Act of 1898. Men went to court as many as six times before they secured exemption certificates, and numbers gave up after the third or fourth trial."

There the quotation ended, and then came Mr. Pomeroy's comment and statement of facts. He said:

"To my mind a more villainous misuse and abuse of power has never been perpetrated even in the medical profession, which is peculiarly prolific in devices of this kind."

What was the device which was meant? The defendant went on to say:

"It must be remembered that whenever a doctor has been on the bench, which, fortunately, is not an invariable rule, a conscientious objection to vaccination has been impossible to obtain."

Then the defendant described two cases which were not in point. Then he said:

"But why are the medicos so prejudiced? Because of the vaccination fees. They get from 5s. to 7s. 6d. a case in cash, and they can also count on the child successfully inoculated as being a source of income to them for some months after, if not till death. They indirectly admit how valuable are these fees."

The writer, Mr. Pomeroy, knew (or if he did not know, he was culpably negligent), that the plaintiff had no interest in the vaccination fees to the extent of one farthing. He knew the plaintiff could derive no legitimate profit from vaccination, however many, or however few the children might be. Perhaps it might have passed through his mind, when writing the article, that some one would say: "Oh! Miss Adams is the medical inspector of schools. She is paid by a salary," and to correct any such impression that the defendant was only referring to medical men in general, he went on to quote from a meeting of the Poor Law Medical Officers' Association.

Mr. Rawlinson: Will you read the quotation?

Mr. McCall: Gladly.

"At the annual meeting of the Poor Law Medical Officers' Association, recently held at Hull, Dr. Major Greenwood (London) is reported to have said that there was little doubt that many Poor Law appointments throughout the country would be resigned tomorrow were it not for the vaccination fees."

Whether there were some local authorities who paid their medical officers such miserable salaries that they could not afford to live if it were not for the vaccination fees, he (counsel) did not know. But if it were so, all the more shame for the local authorities. But upon that, and with the view, as he suggested he had already mentioned, the defendant went on to say:

"Exactly. Freedom there spells bankruptcy to half the doctors in England. How many of the children reported to the vaccination man by Dr. Martha were subsequently infected by her?"

The defendant knew perfectly well, when writing that, that it was not part of the plaintiff's duty to vaccinate children. The defendant, however, did not stop there.

"At how much per head? Or if by some other doctor, what percentage of the fees did she obtain?"

It was almost an insult to intelligent men to ask them to realize what that imputation conveyed! Dr. Martha Adams would be unworthy of her position in the profession to which she belonged, and would be rightly excluded from it if there were a word of truth in that vile suggestion. If it could be shown—and the defendant had had the courage to plead that the charge was true—that Miss Adams had a percentage of the fees, and had that secret interest in making a report that children required vaccination, and she made her personal advantage control her conduct in making the report, then he submitted it was clear the plaintiff ought not to have been allowed to remain for a day a member of the honourable profession to which she belonged. Counsel on the other side said the truth of the matter was not pleaded. The defendant, like most fanatics, had the courage of his convictions, or at any rate, had sufficient of that kind of courage which enabled a

man to attack a woman. In the interrogatories delivered to the plaintiff in the case, the defendant put the following question:

Did you receive any, and if so what, remuneration, commission, or other payment in respect of the vaccination of any of such children vaccinated subsequent to your inspection?

When the defendant directed his counsel to put that interrogatory, what attitude was he to take up? It was:

"You did get these commissions. You did receive this unjust and corrupt payment, and I am going to prove it, and in order to prove it I ask you to say on your oath whether it was true."

The plaintiff had said on her oath that it was not true. She would say on her oath in the witness box to the jury and his lordship that it was not true. But the defendant instructed his counsel to say that in face of the libel and in the face of the interrogatory, he never meant to accuse the plaintiff of discreditable and corrupt conduct. The jury might perhaps in the course of the case have the opportunity of seeing the defendant in the witness box, and perhaps he would tell them how he came to write the libel, how he came to ask the interrogatory, and how, at the same time, he instructed his counsel to say he never meant it.

The libel proceeded.

"The extraordinary thing is that the cow-pox brigade have really given up the original brand of cow-pox; they now perform an absolutely illegal act."

Then he went on to describe certain deviations, as he alleged, from the procedure recommended by the celebrated Jenner. Counsel was reading the libel because it was an attack on the medical profession generally and on the plaintiff as a member of the profession, who was the easiest to attack at the moment the article was written. The defendant went on to say:

"Now, if Dr. Martha's action is to be passed over unchallenged, we little know what we may not be in for. Many medicine men wish to inoculate their victims, *inter alia*, for diphtheria, enteric, and tuberculosis. Once they secure their inoculations as compulsory, then, by means of medical inspection, those of us who escape at birth will be brought to book later on, and soon there will not be a single person in England whose blood has not been polluted by the disease spreaders and corpse makers sometimes called doctors. Fee hunters is what they are, and until they can get compulsory fees they never feel safe."

The man who could write that about the medical profession—to which every one was so much indebted, as the jury and counsel knew—was a man capable of writing any libel. The medical profession, as a profession, could take care of itself, but the plaintiff complained—and, as he (counsel) submitted, rightly complained—that when she was held up as a specimen of the profession which was to be described in language like he had read, she was entitled to come into a court of law and say: "If I am guilty of any part of what is charged against me here, I am unworthy of remaining for a day a member of the medical profession."

If the libel was wholly untrue, as counsel for the plaintiff's behalf submitted it was, then the jury were there for the purpose of deciding, not merely that it was an unjustifiable and undeserved libel, but what damages the plaintiff would be entitled to. How much did they think she ought to have to enable the plaintiff to say that those associated with her in the profession, and to those in whose service she was—to the public service that to some extent she represented—"I have had my case tried. I have had my libeller before a jury, and the jury have said I am entitled to such damages as they think will vindicate my character from an unjust and cruel attack."

Perhaps they would see whether the defendant was willing to say: "I made this charge, and, as I say in my interrogatories, that charge is true."

The plaintiff, Miss Martha Adams, in answer to Mr. McCall, said she held the Diploma of Medicine of the University of Glasgow, and the Diploma of Public Health of the University of Ireland. She had qualified in July, 1901; and in June, 1908, she was appointed by the Urban District Council of Twickenham Medical Inspector of Schools in that district, and her appointment was subsequently confirmed by a contract, with a schedule of her duties. Upon entering on her duties she was provided with a register, cards of inspection, and certain forms. Her duties were to inspect children in schools, to record any cases that required medical or sanitary attention, and to send notice to the proper authority.

In the ordinary discharge of her duties, she went, on August 27th, 1908, accompanied by a nurse, to St. Stephen's School, St. Margaret's, Twickenham, where she found two unvaccinated children. In one case an exemption certificate had been obtained, but not in the second case. The witness spoke to the mother of the child in the latter case, telling her it was advisable to have the child vaccinated, and handing her a form for the medical officer. Nothing was said about sending a notice to the medical officer or any one else. Both cases were treated in the same way as plaintiff had dealt with other cases, and no exception was made. The form referred to was as follows:—

> "Medical Inspection under Section 13 of the Education Act, 1907. Letter to Medical Adviser, Twickenham Local Education Authority, ..., 1909. Dear Sir, or Madam, I have examined ..... of ..... School, and I find he or she is ..... I have therefore advised the parents to seek your advice.—Yours, faithfully, M. Adams, Lady Medical Inspector of Schools."

Continuing, the plaintiff said she inserted the word "unvaccinated" in the form. The following month she sent a list of unvaccinated children to Mr. Field, the vaccination officer, and she had no further communication with the mother of the child or the medical officer of health respecting the child. Subsequently the plaintiff was instructed to send such notices as were given in such cases to the clerk of the urban district authority, who sent them on to the medical officer of health.

Have you, since you held this position, vaccinated a single child?—No, I have never vaccinated a child in Twickenham.

Or even directed that a child should be vaccinated?—No.

In further answers the plaintiff said there was an officer in Twickenham who held the position of public vaccinator. At that time the plaintiff did not know him, and had never spoken to him. She had seen the article of which she complained. She had had nothing to do with vaccination or directing vaccination in Twickenham. There was no ground for suggesting, in the case in question, or in any case, that she had any object to serve except the conscientious discharge of her duties as visiting medical officer. Apart from salary she had no fees for examining or reporting upon children. With regard to the passage in the alleged libel, "How many of the children reported to the vaccination man by Dr. Martha were subsequently infected by her?" she understood it to mean that she had vaccinated children, using lymph which carried with it injurious or poisonous matter.

Mr. McCall: Is there the slighest truth in the suggestion that you ever obtained a percentage from the vaccinating officer, or ever applied for any such percentage or commission?—Not the slightest.

You know the rules of your profession well?—Yes.

And you know the views entertained by the British Medical Association about receiving commissions?—Yes.

Would a doctor guilty of any such conduct as that be allowed to remain on the *Register* an hour?—No.

Plaintiff also denied the truth of the allegation in the interrogatory read by Mr. McCall in opening the case, and showed she was paid entirely by salary and had no interest whatever in fees.

The Judge: I notice the article winds up: "What a damnable law! To men who can think, vaccinated people are dirt beds of disease and a danger to the community." I daresay a judge may be a danger to the community, but I did not know I was. (Laughter.)

Cross-examined by Mr. Rawlinson, the plaintiff said she was appointed in 1908 and was still receiving the same remuneration, and had not suffered pecuniarily by the publication of the libel. She admitted that in the official circulars nothing was said about vaccination, and that Circular No. 522 said:

"All entries of the results of inspection in each individual case must be regarded as confidential."

In the particular case she had reported, as a matter of fact, in writing, the fact that the child was not vaccinated and was not exempted to the local vaccination officer. The plaintiff had seen in the BRITISH MEDICAL JOURNAL that that was the subject of a question in the House of Commons addressed by Mr. Lupton to Mr. Runciman, as follows:

"(Mr. Lupton): I beg to ask the President of the Board of Education if his attention has been called to the action of Dr. Adams, Medical Inspector of the St. Stephen's Schools, St. Margaret's, Twickenham, who examined children for vaccination marks, and reported the unvaccinated ones to the vaccination officer. If his attention has been called to the action of a school nurse calling upon parents with regard to the vaccination of the children. If he proposes to take any action to prevent repetition of this conduct."

The answer of the President of the Board of Education was as follows:

"My attention has been called to the matter, and I have made inquiry into the circumstance of the case, which has been receiving my consideration. The Board has never suggested to local Education Authorities that they should, as part of the work of medical inspection under the Act of 1907, inquire whether school children have or have not been vaccinated. If inquiries are made on this point by any local Education Authority, the information obtained should be regarded as strictly confidential between the local Education Authority and the parents of the children concerned, and, as confidential, ought not to be communicated to the vaccination officer or the public vaccinator. I may add that I strongly deprecate any attempt on the part of the local authorities to use the machinery of medical inspection for the purpose of enforcing vaccination. Such action is likely to discredit medical inspection in the eyes of many parents who would be otherwise glad to take advantage of it."

Mr. Rawlinson: Did you hear of that also from your council?—Yes, I heard of it from Dr. Newman. He said it was simply a matter of diplomacy—that if the parents were deterred from coming it would not be wise to pursue the thing. He said as a matter of policy it had better not be done in view of the parents taking offence at it, but as long as the thing was carried out in a nice friendly spirit there was no harm.

What was a matter of diplomacy?—It was a matter of policy with regard to my children and the parents attending the inspection.

Dr. Newman had communicated the answer as well?—He simply came down about the case.

And he referred to this?—Yes.

You do not suggest that that answer of Mr. Runciman was not a genuine answer?—Well, it was genuine, but the whole thing was meant not to interfere with the parents coming.

The Judge: Have you never heard of a diplomatic answer given in the House, Mr. Rawlinson? (Laughter.)

Mr. McCall: I think Mr. Rawlinson has the facts upside down. Dr. Newman came down before Mr. Runciman's answer was given, so that he could not have read the answer very well, even in Twickenham. (Renewed laughter.)

In further cross-examination the plaintiff agreed that persons holding views against vaccination had a right to comment upon her having done a thing contrary to the intention and desire of the Government in communicating with the public vaccinator.

The Judge: I thought it was the duty of the vaccinating officer to inquire of the mother or parents of every child whether it had not been vaccinated. I cannot see what harm there is in any one in the position of the plaintiff communicating to the vaccination officer the fact that some one is not vaccinated when it is that officer's duty to ask the parents of the child why it has not been vaccinated.

Mr. Rawlinson: The objection is this: This medical inspection in a sense is compulsory, and any information obtained in that way should be, as Mr. Runciman says, absolutely confidential.

The Judge: Yes; but that refers, I should have thought, to anything which it is not desirable to publish, such as a certain disease which the child is suffering from.

Mr. Rawlinson: It is far more than that. The question was asked in respect of this particular case, and the answer deals with the report.

The Judge: All I can say is, I do not agree with Mr. Runciman where he talks of enforcing vaccination; it is nothing of the kind, because the vaccination officer cannot force them to be vaccinated. I do not think he was justified in saying it.

Mr. McCall: What your Lordship has said with regard to the duty of the vaccination officer is quite right. That is completely provided for by the Vaccination Order issued by the Local Government Board under the Vaccination Act of 1898.

Cross-examination continued: The plaintiff's duties were quite different from inquiries by the vaccination officer, and with regard to special diseases, the information obtained was as secret as that obtained by any doctor. Since the answer given in the House, and since the Board of Education had communicated with the Twickenham Local Board, she had not reported any case to the public vaccinator, the reason being, to some extent, because of instructions from head quarters, and she had given up the course of proceedings she adopted in September, 1908. Dealing with the case of the child in question, plaintiff saw for herself that it was not vaccinated, but did not remember asking the mother if she had an exemption. It was a matter of routine to write out the ticket and explain that the child should be vaccinated. There was no coercion in the matter.

The Judge: If the parents had not an exemption certificate, were they not liable to be fined?

Mr. McCall: Yes.

The Judge: Then I should have thought the plaintiff was doing a kindly thing to a mother who had an unvaccinated child, and had not an exemption certificate, in saying, "You should get exemption or have the child vaccinated."

Mr. Rawlinson: At any rate, it was not part of your duty to do that?

The Witness: No, it was not my special duty.

Continuing, the plaintiff said she had not considered the fact that exemption could not be obtained for a child after four months. In acting as she had there was no coercion, and she was simply doing her duty. It was part of her duty to see whether the child had been vaccinated, but not to inquire whether it was exempted. She might possibly have asked the mother if she had an exemption order, and remembered that the mother had no objection to vaccination. She did not know the father was an antivaccinator until the matter appeared in the *Star*. It was quite likely she inquired if the parents could pay for vaccination, and said if not the public vaccinator would do it; that was a matter of routine. Following upon that the nurse called on the parents, and the witness sent her report to the vaccination officer.

Questioned with regard to the alleged libel, the plaintiff said that was applicable to her profession, and as her name was mentioned it must apply to her. She felt it very much, and mentioned to her friends that she was described as a "corpse maker." If in private practice she attended an unvaccinated child, she would, with the parents' consent, vaccinate the child, but would not otherwise interfere. In the case in question she was carrying out a statutory duty. She did not agree that the "infected" in the alleged libel meant vaccinated.

Re-examined, the plaintiff said if the article were true she would be dismissed at once, and she would be dealt with by the disciplinary authorities of her profession. Notwithstanding what was said in the House of Commons, she had not received any complaint from the Board of Education.

Dr. Alfred George Bateman, M.B., member of the Medico-Legal Society, member of the Central Ethical Committee of the British Medical Association, and general secretary of the Medical Defence Union, said he had had experience in ethical matters relating to the medical profession extending over twenty-one years. Infamous conduct was defined by the Act of Parliament, under a section of which any medical practitioner, whether male or female, might be removed from the *Register* for certain offences, if they had been found guilty in any court of justice of any felony or misdemeanour, or if, after due inquiry by the General Medical Council, they were found guilty of infamous conduct in a professional respect. If anyone were guilty of what appeared in the alleged libel, he would be liable to be brought before the Council.

If it were true that the plaintiff had an arrangement to share fees, would that be conduct of an infamous character?—There would be no question about it whatever.

Cross-examined: Strong language was not only used by anti-vaccinators with regard to the medical profession, but by others as well; the medical profession was none the worse for that. Sometimes the medical journals used strong words with regard to antivaccinators, but they were addressed to medical men. There was no question that hard blows were given on either side.

Would such a passage as "Once they secure their inoculations as compulsory, then by means of medical inspection, those of us who escape at birth will be brought to book later on, and soon there will not be a single person in England whose blood has not been polluted by the disease spreaders and corpse makers, sometimes called doctors," do the medical profession any harm?—I should think it would seriously reflect upon the writer as to his sanity. (Laughter).

Re-examined: The plaintiff in the inspection was undoubtedly discharging a statutory duty.

At this stage the case was adjourned till the following day.

Second Day.

Dr. William Frederick Macdonogh, in answer to Mr. McCall, said he had been medical officer for vaccination purposes in the Twickenham District for twenty-one or twenty-two years. After the month of August, 1908, he had never seen the plaintiff or had any conversation with her. Apart from the Education Act of 1907, the vaccination officer reported to him from time to time cases where it was necessary to vaccinate children. The plaintiff had shown witness a copy of *Vanity Fair* containing the alleged libel. There was no truth in the suggestion that the witness suggested to the plaintiff, or the plaintiff to the witness, that she should share the vaccination fees. He had never shared any vaccination fees with her, or given her any commission or percentage upon them. It would have been a most wrong thing for the witness to do that—as wrong as it would be for the plaintiff to accept it.

In cross-examination by Mr. Rawlinson, the witness said he was district medical officer for Twickenham, and also public vaccinator for the district. He had nothing to do with the particular case in question, which came from the Isleworth district. It was not true that vaccination officers had in certain cases as much as 5s. or 7s. 6d. for a case, but public vaccinators might. The witness was a public vaccinator, and he got 3s. 6d. It depended upon the distance or mileage that had to be travelled. In witness's district the fees were down to the minimum, but he did not know what had occurred outside that district. The fees had been reduced two or three years ago, and the minimum was 3s. 6d. if the population was under a certain number, and 2s. 6d. if under a greater number. From 1867 to 1898 vaccination was compulsory; but the result of the Royal Commission on Vaccination was that from 1898 exemption could be obtained upon appearance before magistrates and stating a conscientious objection. That state of things remained in existence until the end of 1907. He had heard of exemptions being refused, but a great many were obtained very easily.

The Judge interposed with the remark that he had been present when applications were made for exemption, and the difficulty was to know whether the exemption was conscientious. When a person came in and said he had a conscientious objection and burst out laughing it was difficult to believe him.

Cross-examination continued: The parent, before 1907, had to satisfy two magistrates, or a stipendiary magistrate, that he had a conscientious objection. The witness did not agree, however, that the difficulty of getting exemption was the cause of the law being altered. The father, to get exemption, had to go the the magistrate before the child was four months old. Between 1898 and 1907, parents, beyond receiving notice that children must be vaccinated, were never pressed to have them vaccinated. In his district there were no convictions for non-vaccination in that period, and with regard to the country at large, he had never read of such a case. The witness agreed, however, that the law was such that a parent could be summoned and fined even at the present time. He did not think there was a large number of people who conscientiously believed that vaccination was harmful. People did not apply for certificates for the sake of exemption, but for the fun of interviewing the magistrate.

Mr. Rawlinson sought to cross-examine the witness with regard to the Minority Report of the Royal Commission on Vaccination, but the judge ruled that such evidence was not relevant to the issue.

Re-examined by Mr. McCall, the witness said he vaccinated only for the Twickenham District, and had vaccinated fifty children between October, 1908, and the present time, reported upon by the plaintiff.

Mr. J. Smith Whitaker, registered medical practitioner, Medical Secretary of the British Medical Association for the past seven years, and also Secretary to the Central Ethical Committee of that body, said it was the duty of the Committee to consider any cases of alleged professional misconduct. He had read the article in *Vanity Fair* which was brought before the Central Ethical Committee. If certain of the statements in the article were true, it would be his Committee's duty to bring the matter to the notice of the General Medical Council.

Cross-examined: The witness was shown the article in *Vanity Fair* by some one on behalf of Dr. Adams or her solicitors. It was possible he was shown it for the purpose of the action, but he could not say the purpose for which it was shown to him, and he was not told. He understood it was in order that the Central Ethical Committee might consider the nature of the complaint and state its opinion thereon.

Questioned on the quotation in the alleged libel: "At the annual meeting of the Poor Law Medical Officers' Association, recently held at Hull, Dr. Major Greenwood (London) is reported to have said that there was little doubt that many Poor Law appointments throughout the country would be resigned to-morrow were it not for the vaccination fees," and as to whether it was not a common complaint in the medical profession that Poor Law officers were underpaid, the witness agreed they were underpaid, but he should not have thought many Poor Law doctors would resign their appointments if it were not for the vaccination fees. The fees would, however, make a considerable difference in a medical man's income.

Mr. Hilton Jason Saunders, examined by Mr. McCall, said he had been for many years clerk to the Twickenham Urban District Council, which was the local education authority for Twickenham. As clerk and adviser of the local education authority, he had made himself familiar with the provisions of the Education Act, 1907, which came into force in August of that year. Section 13 of the Act made the provision as to medical inspection of schools, and the Act also provided that the Board of Education should issue instructions and directions to the local authority. In pursuance of those provisions a circular was issued, the terms of which had been read to the jury the previous day. There were other circulars in addition. Circular 582 was sent soon after issue in January, 1908, by the Board of Education. The circular said the Board desired that considerable latitude should be left to each educational authority, and it provided a form constituting the minimum efficient medical inspection. He had issued to the plaintiff, as medical officer, a form on a card, to be filled up. Appearing in the form under "Personal history" there were various illnesses given. Then there were "Other illnesses" and finally "Vaccination marks" with a space left for either "Present" or "Absent" to be inserted. That was the card which was filled up in the case of Ivy Hazard, the particular case in question. The remark with regard to vaccination was "Absent" and that was recorded in the register. Circular 582 gave a schedule of defects and item 24 was "Other disease or defects." In pursuance of that the witness's education authority put in the word "Vaccination." Having been approved by the authority, the employers of the plaintiff, the form was issued to the plaintiff to be filled up as it was filled up in the case of Ivy Hazard. The plaintiff had sent an intimation to the vaccination officer, but the form was kept in the office because, if need be, the witness had to send what was on that form to any other school in another district. It recorded the history of the child. The course of business upon the form was simply to record the incidence with regard to any particular child. Without carrying it further, this would be futile. For instance, a doctor might find a child whose eyes required attention. Naturally it was necessary to refer to the card and to the register for that purpose. The doctor would state to the committee with regard to that child that the child's eyes required attention, and it was referred to the committee, and the committee determined what course should be taken. It was no part of the duty of the plaintiff to carry out such remedy; the remedy was carried out by a medical practitioner, not necessarily the medical officer. Whatever was done was done upon the direction of the local education authority. Before the form was adopted every member of the Education Committee had Circular 582. The local authority instructed the witness to get from the various Local Government publishers the forms which they were printing. The witness obtained forms from about seven, and those forms were submitted to the committee, and it was after consideration of various forms that the witness's local Education Committee determined upon the form already referred to.

Cross-examined by Mr. Rawlinson, the witness said that par. 7 of Circular 582 required that all entries of the results of inspection in each particular case must be recorded as confidential. That was in leaded type. The schedule set out a large number of illnesses which were to be filled in if they existed. Item 24 was for disease or defect. In the form which was issued by the Government there was no mention of vaccination from beginning to end. After the schedule was received from the Government the local authority issued a form based upon the schedule but containing the words "vaccination marks." That was still done. The doctor returned the answers to the form and that was entered in the record, and if the child left the school it was sent, if need be, to another school. The witness did not agree that that was all the plaintiff had to do. If she found any particular defect, such as a question of eyes, she attended before the committee and explained that in her examination she had found such and such a condition, and advised further steps to be taken. As far as reporting was concerned, of course witness agreed that was the extent of plaintiff's duty. While it had been proved that after plaintiff had made the report to the office, she sent a list of children who had not been vaccinated, notifying those who had not got exemptions to either the public vaccinator or vaccination officer, witness was not prepared to admit that that was not part of plaintiff's duty. The plaintiff had no instructions to the contrary. It would have been a more formal and proper matter if it had come through the witness's office. It was not laid down that the witness had to make such a report to the vaccination officer. No duties were laid down at all, but only certain suggestions were made. Witness remembered the questions answered in the House by Mr. Runciman. The Government sent down and made inquiries, but the question had not been answered then. Dr. Newman saw the witness. The witness read the answer in the House, but had not received any directions consequent upon that, and he had not heard from the Board of Education or any one else.

Do you agree with the sentiments expressed in the answer?—No, I disagree.

Your local education authority disagree with the Government, perhaps?—They have not expressed any opinion.

Cross-examination continued: The witness explained the matter to his committee, and they passed a resolution that in future anything appertaining to the medical inspection of schools should pass through his hands alone. They did not curtail anything with regard to the medical inspection, and he had not had an instruction that anything which came into his office was to be treated as confidential.

Do you really tell the jury now, in the face of the answers in the House of Commons, and the comments upon this, that, if you get information from your medical officer, Dr. Adams, you do not regard it as confidential between your local education committee and the parent?—You cannot keep it strictly confidential. It is a matter of impossibility to do it.

If you found out from Dr. Adams that there was a child unvaccinated and whose parents had not got an exemption certificate, would you inform the public vaccinator or not?—I have not given that matter a thought.

I ask you to give it a thought?—I am not instructed at the present time upon it.

I am going to ask you now. This has been going on since October, 1908. If you get a report from Dr. Adams that a child in your district is unvaccinated and has not got exemption, do you, or do you not, report that to the vaccination officer?—At the present time we have not done so.

Why not?—I am waiting to get the instructions of the committee. If I get the instruction of the committee to do it I shall do it.

So far, the committee, although they have been sitting since October, 1908, and the question was put in the House and the answer made in October, have not made up their minds upon what course they are going to pursue?—That is so.

Are they waiting for the result of this action?—I have not put it before them.

Are they waiting for the result of this action to see whether it is safe to do it?—I do not think so.

Why have you not reported cases since if it was not that you knew it was illegal to do so. Cases must have come to you pretty frequently since September, 1908, of unvaccinated children whose parents had not got exemption. If you thought it was your duty to report it to the vaccination officer, why have you not done it?—I have not any instructions from my committee so to do. In my opinion I ought to get instructions before I make any communication at all.

Why have you not got instructions?—This Act is a very (if I may use the term) young Act. It behoves the local authorities to proceed cautiously. There are a great many matters with regard to this Act which have never been before the local authorities before or published before. Therefore, we can only go step by step. We have not taken this step which you are now raising with me, and we have not taken steps in other things which I have mentioned.

But this is a very important step?—But no more important than others.

But it is a very important one?—It may be.

For the last fifteen months you have taken no steps upon it?—No.

From the point of view of people forced to vaccination it is a vital step?—I do not think so.

You know it is the only way in which the public vaccinator can get definite information?—I do not agree.

He has no power of inspection?—With due respect, you are confusing the two officers.

The medical officer of health or the public vaccinator?—No, you are still confounding the two officers.

I am putting both in this case. Is there any possible way in which it would have been discovered that the child had not been vaccinated except by inspection by Dr. Adams?—Yes. It is the duty of the superintending vaccinating officer of the board of guardians to go round. So soon as the child is registered notice is given to the officer that such and such a child is registered. He immediately goes round and sees whether the child has been vaccinated, and, therefore, it is quite possible for an officer to find out; but when a child leaves the district the difficulty arises.

Cross-examination continued: The witness did not know Ivy Hazard was not born in the district, but did not agree there was no means of finding out whether she had not been vaccinated. The officer might go round from house to house finding out whether there were children of tender age living there, and he could then go to the register of births and find out the district in which they were born, and ultimately ascertain whether they had been vaccinated.

In re-examination, witness said it was part of his duty to bring the reports of the inspecting medical officer before the Education Committee in order that the committee might take such steps as they thought right.

This concluded the case for the plaintiff.

Mr. Rawlinson, in opening the case, said that although he had to present the unpopular side to the jury he was sure they would try the case fairly. Mr. Pomeroy was a gentleman of some position who had devoted a large amount of time and money to the question of antivaccination. He had written the article in question without the slighest idea of injuring Dr. Adams, whom he did not know, in any way, but for the purpose of discussing strongly and forcibly a matter of the gravest public interest, which was, according to his view, a matter of vital interest to those with whom he was associated, and on behalf of whom he had worked for many years. The defendant had nothing to be ashamed of in his past life. He was the eldest son of Lord Harberton, and had devoted his life to philanthropic efforts and to the vaccination question. Counsel dealt with the state of the law between 1898 and 1907, pointing out the difficulty of obtaining exemption from vaccination. It was during that period that Ivy Hazard, whose case had given rise to the discussion, was born. In her case no exemption certificate had been obtained. The defendant shared the views of those who drew up the Minority Report of the Vaccination Commission, and held the view, shared by many eminent men in the country, that vaccination was distinctly dangerous and ought not to be compulsory. There was a distinct divergence between the two schools of thought with regard to inoculation. One school thought inoculation to be admirable against small-pox, diphtheria, tuberculosis, and so on; but others, like Mr. Pomeroy, took the view, which was perfectly tenable, and a fair view to take, that by injecting what was called contaminated lymph into the human person, poison was being put into the body, thereby altering the state of the blood; and once the human blood was contaminated great harm might be done to the individual. People who held the view that it was dangerous and improper to vaccinate were perfectly entitled to hold that view and to express it. That being so, those who were prepared to devote time and money to assisting the prevention of wholesale vaccination were bound to keep their eyes very widely opened for any attempt to make the existing law in favour of wholesale vaccination more stringent than it was. The law had been weakened, and those in favour of vaccination were trying to strengthen the law. Those against it were equally keen to see the law was not enforced more harshly than it was at the present time, and they wanted the law made even laxer than it was. Counsel pointed out that the particular child in question was not born in Twickenham, but her father had moved there to avoid a summons for vaccination, and he had lived there in perfect safety, so far as he was concerned, for some years. Then came the Education Act of 1907, which provided for the medical inspection of children attending school. The Act was created for the purpose of improving the physical condition of children, and under the Act the plaintiff was appointed the medical inspector. There was not one word about vaccination in the Act of Parliament or in the circulars which the Board of Education sent out. Not only was the result of any inspection to be treated as confidential, but there was a printed form for diseases to be reported upon. The fair inference from the circulars was that the Act of 1907 had nothing to do with vaccination and was not intended to have anything to do with it. He (counsel) ventured to suggest that the Twickenham Education Authority had quite improperly included vaccination as one of the things their medical inspector was to report upon. But, further than that, the plaintiff, when she found an unvaccinated child at the school, asked whether it had been exempted, and, when she found that it had not, she sent in the name of the child, Ivy Hazard, with the names of twenty-three other children to the public vaccinator of the district, thereby giving information, which it was not part of her duty to do, to the public vaccinator of the district, and information which he could not possibly have got by other means and which ought to have been confidential information so far as the local education authority was concerned. The result was that the child's father had notice served upon him, and the vaccination officer called in the ordinary way. Thereupon the father complained, the matter was taken up, and an article appeared in the *Morning Leader*. The defendant did not write the article, but he saw it, and, considering it was a matter of great public interest, he wrote the article complained of. The importance of the issue raised by what was a seemingly small matter was tremendous. The inspection was compulsory. Was it right that information gained under such circumstances should be communicated to the vaccination officer? He (counsel) had possibly spoken with some heat, but what must have been the feeling of those who had devoted time and money to the defence of those who objected to vaccination when they heard of what had occurred. Could any greater abuse of the powers conferred by the Act be imagined than the action of the plaintiff at that particular time? Ultimately a question was raised in the House of Commons and the jury were aware of what an impartial authority thought of the action of the Twickenham Education Authority. The result had been that ever since October, 1908, the matter had hung in the balance and the local authority had not reported anybody to the public vaccinator since then. The local authority clearly wanted to be able to report to the vaccination officer because otherwise they would not have included vaccination to be reported upon by the medical inspector, which under the Act they had no power to do. The authority was evidently waiting for the result of the case to see whether they dare report in future to the vaccination officer.

Dealing with the alleged libel counsel said it was unquestionably couched in strong language, but he submitted Mr. Pomeroy was fully entitled to put strong language before the public, having regard to his point of view. In conclusion, Mr. Rawlinson reviewed the article at length, and invited the jury to say that the defendant had not exceeded the limits of fair comment.

The Hon. Ernest Arthur George Pomeroy, the defendant, in giving evidence, said he had for many years taken an interest in the question of vaccination and antivaccination. He had studied various books and reports that had been issued on the question of vaccination, and had written articles from the antivaccinationist's point of view once or twice. He had also pecuniarily and otherwise assisted persons to get exemptions from vaccination where it was possible, and had been with them to Court on several occasions. He had had his attention drawn to the article in the *Morning Leader*. He had never heard of the plaintiff, Dr. Adams, before. He formed an opinion of her actions as set out in the article in the *Morning Leader*, which was all he knew on the snbject at all. He inquired of the Hazards as to the accuracy of the article in the *Morning Leader*, and wrote to Mr. Hazard to find out exactly what had happened. He did that some time before he wrote the article complained of in *Vanity Fair*. He had contributed from time to time to *Vanity Fair* on various subjects; but beyond that he had no interest in the paper. From the information he had gleaned from documents and papers he had found it was absolutely impossible to get exemption in many districts, and in other districts it was a matter of extreme difficulty, although not impossible. He was prepared to give definite instances from reported cases.

Did you take in the *Vaccination Inquirer* in which such cases are reported?—Yes.

Examination continued: The words, "To my mind a more villainous misuse and abuse of power has never been perpetrated, even in the medical profession, which is equally prolific in devices of this kind," represented the opinion he formed in regard to the matter as detailed in the *Morning Leader*, taken in conjunction with other actions of medical people. He had other bases for the remark, apart from the article in the *Morning Leader*, and if it were necessary he could give instances and foundation for the remarks which he made. He had not any personal animosity or feeling against Dr. Adams when he wrote the article. It was what the plaintiff had done that annoyed him. He was writing against the general danger of vaccination, and the general danger of indirectly enforcing vaccination, having regard to the action of the plaintiff, under the new Act of 1907. That was the only object with which he wrote the article, and on behalf of the poorer parents who were unable to protect themselves. With regard to the expressions "disease spreaders" and "corpse makers," and other epithets, he was prepared to give instances showing the foundation he had for using them. He had read the Minority Report of the Vaccination Committee before he wrote the article, and held a strong view that vaccination itself was dangerous because it affected a person with a syphilitic complaint.

Cross-examined by Mr. McCall:

Do you come here to-day to say this article is justified?—Yes, that is my view.

Now let me call your attention for the first time, apparently, to the material question here. Up to the date of publication on October 7th, 1908, had you any ground for believing Miss Adams was doing otherwise than conscientionsly discharging her duty to her employers?—No; I knew nothing about Miss Adams.

Then the answer is, No. If you thought this lady was merely conscientiously discharging her duty, how came you to say and to write that: "A more villainous misuse and abuse of power has never been perpetrated, even in the medical profession"?—Because I think she vastly exceeded her duty.

I asked you whether you thought she was conscientiously discharging her duty, and you said Yes. The words that you wrote were, not "exceeding her duty," but "villainous misuse and abuse of power." Do you justify that?—I certainly justify it. I think she abused her position in a particular way.

Do you say now that it was true to say of this lady that "a more villainous misuse and abuse of power has never been perpetrated in the medical profession"?—I think with regard to the act the lady committed, Yes.

Do you say that that is true, Yes or No?—Put in that form I say Yes.

The Judge: That it was a villainous misuse?—I do.

Even in the medical profession. You say some very nasty things about them?—Yes, even in the medical profession.

Mr. McCall: Do you seriously tell the jury that that was a justifiable phrase to use in regard to a lady whom you believed to be conscientiously discharging her duties? Will you please tell me, Yes or No?—It is hard to answer exactly Yes or No to a question of that sort.

I have no doubt it is, and that is the reason I put the question?—I do not believe I am bound to answer the question Yes or No. I believe I can make a slight round to it.

If you tell the jury you would rather not answer Yes or No to it, I will leave it.—Will you put the question again so that I can consider it.

Do you say now that it was true to write these words of a lady who you thought was acting conscientiously in discharging her duties to her employers?—I do not think I did say she was conscientiously discharging her duties.

You told us you thought she was a short time ago?—Not with reference to that particular matter. I did not think so.

Do, please, recall what you said less than two minutes ago.—I have done.

Up till October 7th had you any reason to believe that this lady was doing otherwise than conscientiously discharging her duty to her employer? You said No?—Previous to that date I had never heard of the lady or her employers until the article came before me. I cannot give you any opinion about the lady.

Do you act upon the ordinary principle of believing even ladies to be honest until the contrary is proved?—I think I can say so. Yes.

And as you had no reason to suspect Miss Adams, you believed her to be honest at the time that you wrote the article?—Yes.

How, then, came you to charge her with villainous misuse and abuse of her power?—Because I thought what she did was a villainous misuse and abuse of her power simply.

Then you say that that portion of this libel is true?—Yes.

The Judge: That a person who acts conscientiously is guilty of villainy!

Mr. Rawlinson: The people who burnt the early Christian martyrs were referred to as villains, I think, but they were acting conscientiously. (Laughter.)

Mr. McCall: I do not know whether my friend Mr. Rawlinson intended it, but he puts you in the same class as the people who burnt the early Christians. Do you accept that? (Renewed laughter.) Do you accept the parallel, or is it only a Parliamentary expression? (Further laughter.) A little lower down in the article you say: "Freedom spells bankruptcy to half the doctors in England." Do you believe that?—Yes, I do, without tying myself down to the actual figure of half. I believe it would to a large number.

Do you mean that freedom, meaning freedom from vaccination, spells bankruptcy to half the doctors of England?—I do, in the main. It is rather widely stated, but I believe it in the main.

Rather widely stated! Is that a phrase to cover an inaccuracy?—"Half" is used in a very wide sense. If you go to the 'Varsity match and say half are Oxford and half are Cambridge you do not tie yourself down to a definite figure.

Does the same apply to bankruptcy? When you say "bankruptcy," do you only mean the inconvenience?—I thought you were referring to numbers.

I am referring to half-going bankrupt?—"Half," I say, is a wide term.

You say "bankruptcy"?—I think they would have to choose another profession. They could not continue as doctors unless there were vaccination.

Then, in spite of that latitude, this statement, in your view, is true?—Yes, in a general way.

The Judge: It also says: "They can also count on the child successfully inoculated as being a source of income to them for some months after, if not till death." What is the meaning of that?—I mean you are vaccinated with what I regard as a syphilitic complaint, which may come out almost at once afterwards, in which case the doctor comes and charges so much; or it may lie dormant for a long time, and may not come out for twenty or thirty years.

After he dies?—No; before he dies.

It may or may not?—Yes.

You say they count upon it as a source of income?—They count upon it without its being a certainty.

Mr. McCall: You know now that Miss Adams was employed by the Education Committee, and was paid by salary and by salary alone?—I have been informed so in this court.

Well, you know it now?—At this moment I know it.

When you wrote this article, you say of the lady whom you believed to be conscientiously discharging her duties: "How many of the children reported to the vaccination man by Dr. Martha were subsequently infected by her?" Were you so ignorant of the circumstances that you thought she vaccinated the children herself?—Yes; I asked. I did not know whether she did or not. I asked the question.

I do not care whether you asked the question. I am asking you, Were you so ignorant of the circumstances that you thought she vaccinated the children herself?—I told you I was not sure. I did not think one way or the other. I was not sure whether she did or not.

Good gracious! Do you mean that you did not know, when you wrote the phrase that she had infected them, whether she vaccinated them?

Mr. Rawlinson: No. It is: "How many of the children reported to the vaccination man by Dr. Martha were subsequently infected by her?"—It is a question.

Mr. McCall: Yes. "Infected by her" refers to vaccination by her?—Yes.

And you did not know, when you wrote that sentence, whether it was part of her duty to vaccinate or not?—Certainly not.

Now you go on—whether this is similar ignorance you will tell us—to say, "And at so much per head?" That is, what fees she got?—Certainly.

"Or, if by some other doctor, what percentage of the fees did she obtain?" Do you justify that now?—I justify it this way: If there is a new medical officer, as Miss Adams was, appointed in the district, and she vaccinates the children, she would get some of the fees that in the ordinary course of events the public vaccinator would get.

Do you mean the public vaccinator would share his fees with her?—That is not exactly what I am saying. I say this: When a new inspector is appointed, if Miss Adams did vaccinate some children, the public vaccinator would get less in the ordinary course of events. They are all employed by the Twickenham District, and it seemed to me quite possible they would have some arrangement, and I see nothing wrong in suggesting they had some arrangement.

What! That the education medical officer, the inspecting officer, should have some arrangement with the vaccination officer that they should share the fees?—I see nothing wrong in it.

The Judge: You see nothing wrong in it?—Nothing wrong at all, and I asked the question. The public vaccinators get so much per head for vaccinating. If a new man or woman comes and does vaccinating, do you suppose that the public vaccinators are to have nothing for that? I supposed there was some sort of arrangement. I only asked. I did not know. I see nothing wrong in making such an arrangement.

Was it because you saw nothing wrong it it that you charged her with it?—I asked the question for information as a ratepayer to find out exactly what they did do.

You asked the question in a public newspaper to find out, as a ratepayer, what they were doing?—Yes.

Is that one of your methods of controversy?—It is one of my methods of finding out a thing to ask the question in a public paper.

Is it one of your methods of finding out to ask a question in a public newspaper with regard to a fact which you are ignorant of?—Yes; I deny it was libellous.

Did you think it was a compliment?—I think it was a fair question, and I should not object to it if it were asked me if I were in a similar situation.

Just as you have said that is a fair method of controversy, let me put this to you: You have been in a few libel actions before, have you not?—I have been in one.

Have you written, so late as July, 1908, a letter to a clergyman, Mr. Farrows?—I think it is very probable.

You remember?—Yes.

Do you remember being asked about it in a trial which took place on December 17th last year?—Yes; I remember it very well, because they had no right to put the letter in. I unfortunately defended myself, which is the reason I lost the case.

Is it a specimen of your controversy, what you say to a clergyman?—Have you any right to put this in?

After a discussion as to the desirability of the question, the judge allowed it.

Mr. McCall: Is this a sample of your style, Mr. Pomeroy? In writing to a clergyman, do you say: "Thank heaven, I have not had much to do with men of God, for your practices are beyond me altogether. You are at liberty to quote what I say, but not to kick my letters about. Do you see? Damn you!" Is that your letter?—That letter was written under great provocation. It has nothing to do with this case, and I do not think it ought to be read.

Is that letter a fair specimen of your style?—No, it is not; it does not resemble my style at all.

Is it your belief that in a vaccination controversy you are justified in saying what is not true?—No; I am not justified in saying what is not true.

Are you justified in keeping back the truth?—I should say under certain circumstances I should be justified in keeping back the truth.

Did you write a letter to a paper called the *Morning Leader*, the same paper from which you quote, in which you say: "It is a well-known principle of ethics that the truth should not be told to him who has no right to know it. For the sake of his child a parent should be prepared to lie, and even go through a course if necessary"—that is not vaccination; that is lying, there—"so as to do it successfully. The excessively cautious can scratch their child with a penknife first and call it a successful vaccination." Is that your belief?—That is my belief in the case I am talking about there, certainly.

"It is a great mistake to suppose there is any merit in being truthful always"?—I certainly hold that, and most lawyers do, too. (Laughter.)

I do not know for what class of lawyers you speak. I am asking you now to speak for yourself, and I am sure my friend Mr. Rawlinson will disclaim the soft impeachment which you have put upon him. (Renewed laughter.) Let me read the rest of the sentence: "The truth is wasted on burglars, bullies, and bigots"?—So it is.

"It generally needs some manipulation"?—I agree.

"And should not be spoken boldly and baldly to all comers on all occasions." Is that the belief you entertained when you wrote this article of October 7th?—It does not apply to an article of that sort.

Is that the belief you entertained when you wrote this article of October 7th?—No.

Had you ceased to believe it?—It was not in my head at the time, so that I cannot give you a definite answer.

Is that the belief you have entertained since you wrote the letter, or have you altered your belief?—I held that belief as regards certain things, but you cannot tie me down to a thing on every possible occasion.

Do you hold that belief in regard to vaccinators?—(After a pause) Yes; on occasions, I do.

I appreciate it is a poser. Is this one of the occasions on which you do?—No.

Why not?—This is the reason I wrote that letter: It was with respect to parents who cannot get employment unless they are asked whether their child is vaccinated, and they may lose employment if they do not say it is.

There is not a word about employment in this article?—I thought there was. Very well, as regards the conscientious

objection there may be. I think there they are entitled to use some little inaccuracies or even go further if they cannot get it in any other way, and they have a perfect right not to vaccinate their child. Lying is wrong; but if you cannot get what you have a right to in any other way, I think there are occasions when you must do it.

There is no association, is there, between antivaccination in England, and what, for want of a better word the historians call Jesuitry?—I do not follow.

Now let us see the spirit in which you wrote the last sentence?—What are you quoting from?

From the libel. What I have already quoted from is from the libel, except the letter. This is what the libel says—you are speaking of the doctors generally, in a paragraph which is headed, "Dr. Martha's action." You say there: "The disease spreaders, and corpse makers, sometimes called doctors." Is that your belief?—That is in rough words my belief of doctors; that they are disease spreaders. They inoculate you with a disease which you would never have got, such as a syphilitic complaint called vaccination. They put it in you like antitoxin for diphtheria. They give you that. They also inoculated whole troops of soldiers going to South Africa for enteric fever. They gave him some disease and ruined him in many cases. If that is not a disease spreader, what is it?

"Fee hunters is what they are"?—That is exactly it.

Do you mean they do this not because they believe in vaccination but because they are looking for fees?—Some may believe or not, but they are all looking for fees. That is a common point with all doctors.

"Fee hunters is what they are." Do you mean that it is for the sake of the fees that they practise vaccination?—Yes, poor fellows! They have to live. I do not blame them.

That is what you do mean?—Yes, that is my view.

And until they can get compulsory fees, they never feel safe?—Certainly not. If they can get them compulsorily they are safe, naturally.

Just read that with the sentence to which my lord called your attention a moment ago. They are not merely fee hunters in your opinion, but they inoculate because they can count on it as a source of income for months after, if not till death. Is that your view?—I do not think you read it quite accurately.

I will read the sentence. "Fee hunters is what they are; . . . they get from 5s. to 7s. 6d. a case"?

Mr. Rawlinson: That is a totally different part of the libel. You are reading it as one consecutive sentence.

Mr. McCall: It is about the doctors that you say they are fee hunters?—Yes.

It is about medical men that you are writing?—Yes.

Is it also about medical men that you write in the first column, "But why are the medicos so prejudiced"—that is, prejudiced in favour of vaccination, is it not?—Yes.

And you say, "Because of the vaccination fees." Are you charging medical men with practising a system in which they do not believe for the sake of the fees?—I do not know what they believe. I know they want the fees. That is the point. What they believe I do not know, because I have not asked them.

Why, then, did you put the word "prejudiced." "Why are the medicos so prejudiced? Because of the vaccination fees."—Yes, the fees assist them in their belief largely.

Do you mean the fees cause the prejudice?—That is what I mean.

Did you understand that you intended to convey to the readers of this paper that the medical men who practised vaccination were honest or not?—I think it is honest; it is honest to get a fee.

Do you think it honest to be prejudiced by the fee?—Yes, I think so.

Do you seriously say that?—Yes, I think a fee makes a great difference to every one.

Do you think it is honest for the doctor who practises vaccination to be prejudiced by the fee he gets?—I think it perfectly honest.

Fortunately for some of us notions of honesty differ. "They get 5s. to 7s. 6d. a case in cash, and they can also count on the child successfully inoculated as being a source of income for some months after, if not till death." Was that intended to characterize an honest opinion or dishonest prejudice?—Do you ask is it an honest opinion or dishonest prejudice?

Was that intended to characterize an honest opinion or dishonest prejudice?—I think I must leave it to you.

You would rather not answer?—I would rather leave it to you. I do not think you can expect me to know all this.

You have heard now the directions given by the Education Committee of Twickenham to Miss Adams and the forms with which she was supplied?—Yes, for the first time. I knew nothing about it.

That may be a reason for not knowing until you know the facts. You have heard them now?—Quite so.

And you have no reason to disbelieve them?—No.

Mr. Rawlinson: Having heard them, and having no reason to disbelieve them, are they, in your opinion, in accordance with the powers of that Education Committee or not, or the intention and spirit of it?—I think it is a gross abuse.

Mr. McCall: In the course of the proceedings in this action in the month of May last, did you or your advisers put this interrogatory to the plaintiff: "Did you receive any, and if so what, remuneration, commission, or other payment in respect of the vaccination of any of such children vaccinated subsequently to your inspection?"—No. You read that yesterday. It is the first I heard of it. I knew nothing about it at all.

When I read it out yesterday did you ask your solicitor whether it had been put in the course of these proceedings?—I do not think I did. It is the first I heard of it.

Did you ask your solicitor whether that interrogatory had been put by him in the course of these proceedings? Is your solicitor in court?—Yes.

Have you read the interrogatory?—Yes.

Was that put by your solicitor in the course of this action?—It must have been.

Mr. McCall: I put that in.

In re-examination by Mr. Rawlinson the witness said he had nothing to do with the interrogatory being put, and when he heard it in court that was the first he heard of it. He left the conduct of the action in the hands of his solicitor.

My friend asked whether that is an expression of honest opinion or dishonest prejudice. I suppose there is such a thing as honest prejudice?—Yes.

Counsel read at length the letter written by the witness to the *Morning Leader*, headed Compulsory Falsehoods, and the witness said it was written in reference to the matters he was dealing with at the time. The letter written to Mr. Farrars was a private letter written under great provocation, and had no connexion with the case. He had known the person to whom it was written for some little time, and witness considered he had behaved most disgracefully to him. He had only had one action for libel brought against him, and that had nothing to do with vaccination, but was an action brought by a solicitor in respect of something the witness had said or written about him. With regard to his saying that doctors were "disease spreaders" and "corpse makers," the Majority Report of the Royal Commission on Vaccination said: "It is not open to doubt that there have been cases in which injury and death have resulted from vaccination." In his opinion that statement was perfectly established, and he referred to that when he spoke of "disease spreaders" and "corpse makers," and also to the Registrar's report with regard to the deaths of vaccinated people from small-pox. In three consecutive years the percentage of such deaths was 93, 93, and 94. His views on the matter were quite honest, and rightly or wrongly they were shared by a large number of other people. In writing the article he had no other motive than to discuss what he considered was an exceedingly important matter of public interest, except that he had, perhaps, been mixed up with poorer parents slightly in the matter, to whom he had given a great deal of time in relation to the matter.

In discussing and criticizing the action of doctors, had you any intention of doing them harm or only dealing with what you thought were defects in the way the profession were acting?—That is so.

Mr. Hazard, the father of the child Ivy Hazard, of St. Margarets, Twickenham, said the child was born at Kennington. He objected to vaccination because in his opinion it was deleterious to children to be vaccinated, and in consequence of that he had had none of his children vaccinated. He had moved to Twickenham to avoid vaccination, and until the information was given with regard to his child no one could find out whether it was vaccinated or not. Subsequent to the inspection he had received a notice from the vaccination officer, who had called when no one was at home in the "visiting sense."

Mrs. Hazard deposed to the fact that she was present at the inspection of her child, when the lady doctor, ascertaining that it was unvaccinated, inquired whether the mother had an exemption certificate. The answer was, No. The witness had told the plaintiff that the child's father was very much against vaccination. Subsequently the parents received two notices, of which they took no notice.

Mr. Rawlinson addressed the jury on behalf of the defendant and Mr. McCall on behalf of the plaintiff.

The Judge, in summing up, said the question was of considerable importance to the parties in the case. It was of considerable importance to the plaintiff, because she and her advisers considered that she had been grossly maligned. It was also of considerable importance to the defendant, because he was a gentleman holding strong views concerning vaccination, and he thought himself justified in going about the country expounding those views at the expense of other people. It had been claimed that, having those strong views, he was justified in libelling other people and taking away the character of other people. If that were the law, he (the Judge) was afraid the courts would have nothing to do but to try actions for libel and slander. If people were allowed to go away with the impression that because they had strong views they were entitled to make grave accusations, and could do it with impunity, a great many of them would find their hands full. They had heard a very interesting and amusing speech from counsel for the defendant, but one could not help feeling sometimes that there was truth in the old adage that evil communications corrupt good manners. It was suggested that it was justifiable to suppress the truth and tell lies. They read things which went on in a "certain place," and wondered that people had the audacity to make statements which were known to be quite untrue. In that court they had a special instance of a person who had a strong opinion with regard to vaccination saying that he was justified in telling parents to get a knife and prick a child's arm and say it had been vaccinated. It was claimed that it was justifiable to tell lies and to tell parents to tell lies. It was quite impossible that any such suggestion should have been meant in a moral or legal aspect in the case. The stronger a person's view was, if it were founded on fact and real statements, the less was it necessary to say that which was untrue and misled

people. Therefore, if there was any foundation for the defendant's statements, there was every reason why he should be honest about it; and, if he were honest about it, he would convince other people that he was right. But if he based the whole of his argument on falsehood and lying and accusing people and thanking God he had nothing to do with men of God and went about in that way, of course no one would believe him. No one damaged a cause more than any one who acted in that way, and the defendant wound up the charge which he made against the plaintiff in the case by saying, "What a damnable law! To men who can think, vaccinated people are dirt beds of disease and a danger to the community." The court was pretty full that day, and he (the judge) thought that the chances were that nineteen out of every twenty people in the court had been vaccinated, but he did not think those who had been vaccinated would agree with what was said by the defendant in the case that those people, and the jury and he himself, and everybody else who had been vaccinated, were dirt beds of disease and a danger to the community. That was the spirit in which the defendant had made the charge against the plaintiff. With regard to what he had said about the plaintiff, it was said it meant nothing, but was merely expressing a strong view. He (the judge) had been asked to say whether there was a matter of public interest concerned. Undoubtedly there were people who had a strong view against vaccination. No one denied that and it was unfortunate, but it was a matter of public interest. The important point of the question was, was the article a fair comment upon a matter of public interest? Because it was somewhat important, when a thing was of public interest, that the comment should be fair. Otherwise people were misled when they were interested in a case, and where persons were interested from the point of view of the defendant—he (the judge) did not object to the views at all which the defendant was entitled to hold, and he assumed there were other people who held those views—the danger was that in a charge like the present, holding those views, they would go away and repeat the story. They would not know the character of the defendant, or that he said it was just to tell lies and deceive other people. They would not know that, and they would believe when they read the charges that it was true of the plaintiff. That was where the danger came in, and that was why it was so important for juries to signify their views of such a thing, even although they believed with the defendant, as some of them might, that his views were correct. But that was a very different thing from authorizing him, or justifying him, from taking away the character of a person who did not agree with him. That was the position in the case. Now, what had he said of the lady? The language he had used was somewhat striking. "The crew on the Kesteven Education Committee have distinguished themselves in compulsory culture persecutions, but for compulsory cow-pox persecutions, St. Margarets, Twickenham, leads the way." Then the defendant went on to refer to what the plaintiff did in the case in question, and said, "To my mind a more villainous misuse and abuse of power has never been perpetrated even in the medical profession, which is particularly prolific in devices of this kind." That had nothing to do with the defendant's charges against the doctors of the country. Some people thought a great deal of obligation was owing to doctors. If he (the judge) properly had the opportunity, he never failed to say how very few people realized what the poor people of the country owed to doctors. The quantity of gratuitous advice the doctors gave, and the little payment they got, were almost inconceivable unless statistics were gone into, and it was hardly credible how much time doctors gave on behalf of their poorer patients. He felt strongly when such broadcast charges were made as had been made in the present case. The defendant went on to say that doctors got vaccination fees. "They get 5s. to 7s. 6d. a case in cash, and they can also count on the child successfully inoculated as being a source of income to them for some months after, if not till death. . . . Freedom there spells bankruptcy to half the doctors in England. How many of the children reported to the vaccination man by Dr. Martha were subsequently infected by her?" The defendant had not taken the trouble to find out whether the plaintiff vaccinated or not. "And at how much per head? Or, if by some other doctor, what percentage of the fees did she obtain?" Could anything more libellous be imagined than that? The jury had seen the plaintiff in the box subjected to cross-examination by counsel, who put everything to her which would benefit his own client. However painful it was for him to put the questions, it was his duty to put them, and he did it, but he asked no questions which would justify the charges. That being so, there was not the slightest foundation for them. The plaintiff said in chief she was not interested in it, and she only did what she believed to be her duty to the body who employed her—namely, the Education Authority of Twickenham—and was really carrying out the orders of the Education Authority in following up the answer to the question as to whether there were vaccination marks. He (the judge) thought it was very desirable that it should be done. Whether the plaintiff was wise in telling the vaccination officer might be another matter; but she did it with the best of motives, and certainly there was nothing to justify any of the observations made about her sharing the fees. The defendant seemed to rely upon a particular paper and seemed to be in correspondence with the *Morning Leader*. The following was what he said about the press. "What astonishes me is the conspiracy of silence maintained generally by the press on cow-pox. Except in the *Morning Leader*, the deaths and other effects of vaccination are never reported." The meaning of that was that none of the papers would take up Mr. Pomeroy's case but the *Morning Leader*, and that was why he quoted from the *Morning Leader*. What he had to do with the paper the learned judge did not know, and it was unnecessary to go into it, but, according to the defendant, the *Morning Leader* was the one organ of the antivaccinationists. In conclusion, his Lordship asked the jury to say whether they considered the article was fair comment. Even taking it from the point of view of a person who was an antivaccinator, was it fair comment or not upon a person who was only carrying on her duty as a medical inspector? Was it fair comment to accuse her of doing what she did for the sake of the fees, or sharing the fees with another doctor? There was not a tittle of evidence as to that. If it were fair comment, the verdict would be for the defendant. If it were not fair comment, the verdict would be for the plaintiff for such sum as would enable her to be justified in the eyes of the public and would enable her to hold up her head in an honourable profession and prevent not only attacks against her, but other people in the future.

The jury retired, and after an absence of a quarter of an hour returned a verdict for the plaintiff for ¼d.

Mr. Rawlinson asked, having regard to the lines on which the case had been fought and the verdict of the jury, that each side should bear their own costs, as the verdict seemed to show that the action ought not to have been brought.

The Judge said that no one who followed the case could think that. He added that he could not make any order.

The Foreman of the Jury: The jury want the verdict to cover costs. (Laughter).

A PLEA OF HYPNOTIC SUGGESTION.

AT the Westminster Police Court on December 3rd, a young lady, proved to have stolen goods from one of the large stores, was discharged under recognizances on the ground that the thefts were committed under the influence of hypnotic suggestion. Counsel, addressing the court on her behalf, said that she was of a highly respectable Swiss origin, and had been six years in this country as a teacher of languages. For five of those years she had been in one employment as governess. The charge came as a great surprise and shock to her employers, who were ready to receive her again in the same position. The defendant was of timid disposition, and possessed a temperament prone to the influence of a stronger mind. Strange as it might appear, she had committed these thefts consequent on the suggestive influence of a more powerful will, the influence of a woman sometimes with her, and at all times prevailing over her. Among the witnesses was Dr. Crichton Jackson, who said that he had been attending the defendant for nervous disorders for the past three years. She was the sort of person likely to act under the influence of a stronger mind and to be amenable to suggestion.

THE DEATH PENALTY.

As the outcome of a discussion begun at the Medical Congress held at Budapest last autumn, an international inquiry has been set on foot as to the death penalty. A circular containing the following questions is being sent round to members of the medical profession:

1. Do you approve of the death penalty from the medical point of view, and in particular do you think that the responsibility of the criminal can in all cases be determined with certainty?
2. Do you know of cases in which a *post mortem* examination has revealed the existence of gross lesions in the brain of the executed criminal?
3. Give other reasons for or against the death penalty from the medical point of view.
4. Should a doctor attend at an execution in order to verify the death of the condemned person?
5. Do you approve of the proposal which has been made that the next International Medical Congress should record its opinion against the death penalty and against the propriety of a doctor witnessing the execution?
6. Other remarks.

Replies should be addressed to Herr Mikolajski, Sniadeckich-strasse 6, Lvöw, Austria.

MEDICAL PRACTITIONERS AND UNCERTIFIED MIDWIVES.

W. Q. R. states that among his poorer patients it is very common for a pregnant woman to engage him to come to her at her confinement, if sent for, she having engaged a midwife to attend her, and only wanting a doctor in the case of any difficulty arising. He adds that it is common knowledge that many of these midwives are unregistered, and he wishes to know whether, after the registration of all practising midwives has become legally compulsory, as will shortly be the case, he may safely accept such an engagement, if he knows that the midwife engaged by his patient is not on the *Register*.

***The provision to which our correspondent refers is that contained in Section 1 (2) of the Midwives Act, 1902, which is as follows: "From and after the first day of April one thousand nine hundred and ten, no woman shall habitually and for gain attend women in childbirth otherwise than under the direction of a qualified medical practitioner unless she be certified under this Act; any woman so acting without being

certified under this Act shall be liable on summary conviction to a fine not exceeding ten pounds, providing this section shall not apply to legally qualified practitioners, or to any one rendering assistance in a case of emergency." After the appointed day it seems to us that any medical practitioner abetting an uncertified midwife in carrying on independent practice would be liable to be accused before the General Medical Council of an offence analogous to the offence of covering an unregistered practitioner. In accepting any such contract as is implied in such an engagement as that described by our correspondent, it would be wise for the doctor to stipulate that he will only attend if the patient is attended by a legally certified midwife. This does not mean that a practitioner called to a woman in labour must decline to attend because she is in the hands of an uncertified midwife, but he must do nothing to encourage an infringement of the law.

ENGAGEMENT OF LOCUMTENENT.

ASTHMA writes, that being taken ill, he telegraphed on a Saturday to a provincial agent for a locumtenent to be sent at once. He received no reply till Monday, but at 11.30 a.m. came the following telegram: "Must I send locum to-day?" He thereupon telegraphed, "Yes, if you can send one at once." At 1.30 came another telegram, "Dr. A. is on his way." At 4 p.m. another, "Dr. A. has failed us, but Dr. B. is coming to-night." "Asthma" then replied, "Say definitely what time Dr. B. will arrive." To this an answer came, "Dr. B. on his way, will arrive at 5.30 p.m." Dr. B. did not arrive by 9 p.m., so in order not to lose the last post, "Asthma" wrote to another agent to send a locumtenent. In the meanwhile, Dr. B. arrived about midnight, and not being able to get into the house got a bed in the neighbourhood, but presented himself the next morning. Our correspondent then told him he had engaged another locumtenent, as he had not come at the time promised. A bill for 1½ guineas has since been presented. Ought this to be paid?

*** Whether the telegrams quoted gave rise to a valid contract, binding our correspondent to pay Dr. B.'s expenses, could only be decided in a court of law. If Dr. B. had started, as asserted in the last telegram from the agent, and should have arrived at 5.30 p.m., but was unable to keep his engagement on account of circumstances not under his control, he would have an equitable claim to his expenses.

FEES FOR MEDICAL EXAMINATION.

DR. A. GEORGE BATEMAN, General Secretary, Medical Defence Union (4, Trafalgar Square, W.C.), writes: Dr. A. T. Brand has rightly called the attention of the profession to the fact that medical examination of workmen alleged to have been injured and who claim compensation must be paid for by the employer against whom the claim is made. It is, however, necessary to note that the medical examination is only to be paid for by the employer *if he desires such examination to be made* and where he himself *provides the medical examiner*. I accentuate these points as I am often asked whether the certificate of and examination made by the personal medical attendant of the patient is not a liability on the part of the employer, and such claims are sought to be made against the employer. That such claims are not justified under the Act can be shown at once on reference to the two clauses named in Dr. Brand's letter. They are, of course, only a liability against the employer if he directs such examination to be made, and if he instructs the personal medical attendant to carry out such examination and to make a report or send in certificate. There must be an employment of the medical attendant by the employer in order to constitute a liability for the fees in question. He can, and generally does, employ other than the medical attendant. The patient alone is responsible for medical attendance and for any certificate not called for by the employer. A failure to understand these points has often been the cause of friction.

Medico-Ethical.

The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee.

THE OBLIGATIONS OF AN ASSISTANT.

C. C.—The assistant is within his legal right in remaining in his house so long as it may be convenient to him, and no objection can be raised provided he does not infringe his obligation not to practise. Assuming that the assistant does nothing directly or indirectly to interfere with his late principal's practice or patients, and that the sole ground of complaint is that he continues for the present to reside in the house of which he is the tenant, he does not appear to be infringing any ethical principle.

Letters, Notes, and Answers.

BRITISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.

THE offices of the British Medical Association and of the BRITISH MEDICAL JOURNAL are at 429, Strand, London.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

M.D. asks for suggestions as to the cure of constipation in an infant three months old—fed on the breast.

CARCINOMA writes: Would any of your readers who have had experience of the treatment of cancer by injections of potassium bichromate solution be good enough to give particulars of their methods, and say whether it is really of service instead of the orthodox treatment by operation? Also to give instances of cases when the growth has been removed by sloughing, and as to whether the enlarged glands have gone down, and as to whether any recurrence has taken place in other parts of the body?

TUBERCULOSIS OF THE URO-GENITARY TRACT.

M.R.C.S. asks to be referred to publications on tuberculosis of the uro-genitary tract apart from Mr. Hurry Fenwick's volume dealing with the subject.

*** We know of no monograph on the subject other than the one mentioned. It is fairly fully treated in vol. vi of Keen's *Surgery*. The following papers published during the past four years may be of assistance to our correspondent:—Pardoe, "The Treatment of Tuberculosis of the Urinary System by Tuberculin," *Lancet*, 1905, vol. ii, p. 1766; and *Medico-Chirurgical Transactions*, 1906, vol. lxxxix, p. 85. Lucas, "Castration for Tuberculous Disease of the Testis," *Medical Press and Circular*, 1906, vol. lxxxi, p. 14. R. T. Howard, "Tuberculosis of the Testis in Children," *British Journal of Children's Diseases*, 1907, vol. iv, p. 181. Swan, "Nephrectomy and Ureterectomy for Tuberculous Disease," *Clinical Journal*, 1908, vol. xxxii, p. 367.

ANSWERS.

IS SEPTICAEMIA AFTER A STING AN ACCIDENT?

CASTLEVILLE.—There can be little doubt that septicaemia following the bite of a fly is an accident in the ordinary acceptation of the term, just as a similar result of the bite of a dog would be, but whether it is sufficient ground to sustain an action at law is very doubtful. First, there is the difficulty that *post hoc* is not necessarily *propter hoc*. The septicaemia followed the bite of the fly, but may not have been caused by it. Further, if the contention is pushed too far, all infections conveyed by flies (for example, malaria, sleeping sickness) might be made the grounds of accident claims, and is not probable that a court of law would admit this. We do not know of any legal decision which quite fits the case related, and much depends upon the wording of the policy; as a rule, accident policies contain some clause intended to define "accidents," and this clause would probably guide the decision of a judge.

VITAL STATISTICS OF FOREIGN COUNTRIES.

S. B. W.—The Registrar-General's Annual Report (Tables 59 to 88 in last—seventieth—report) gives figures relating to births, deaths, and infantile mortality in a large number of foreign countries.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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